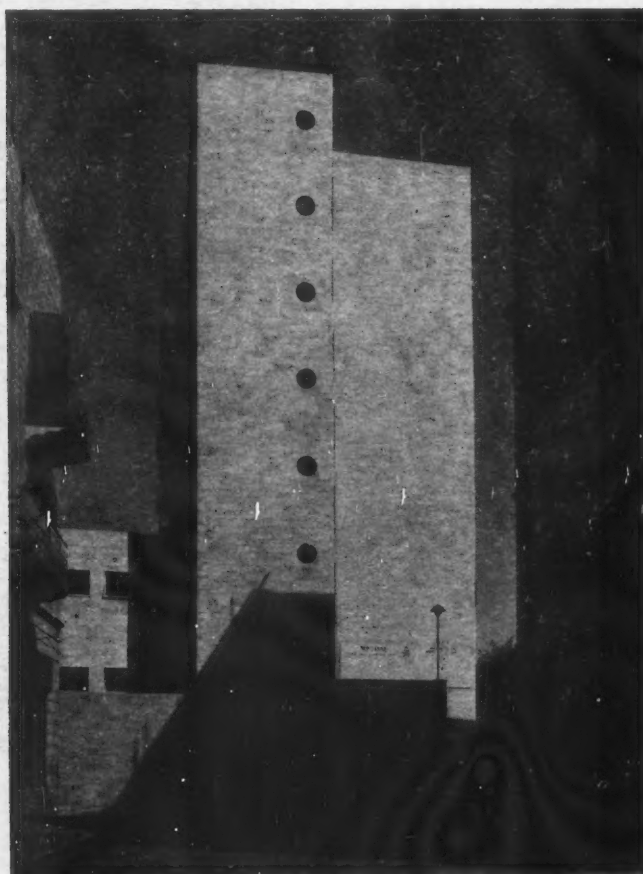


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# THE ARCHITECTURAL REVIEW

*A Magazine of Architecture & Decoration*

JUN 30 1941



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Vol. LXXXIX

June 1941

No. 534

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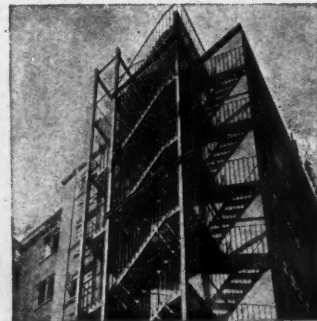
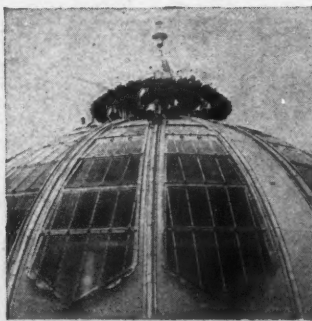
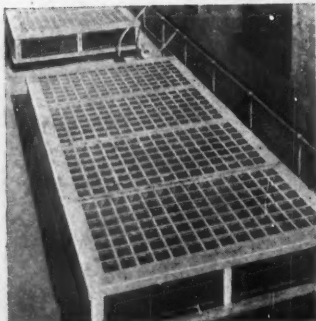
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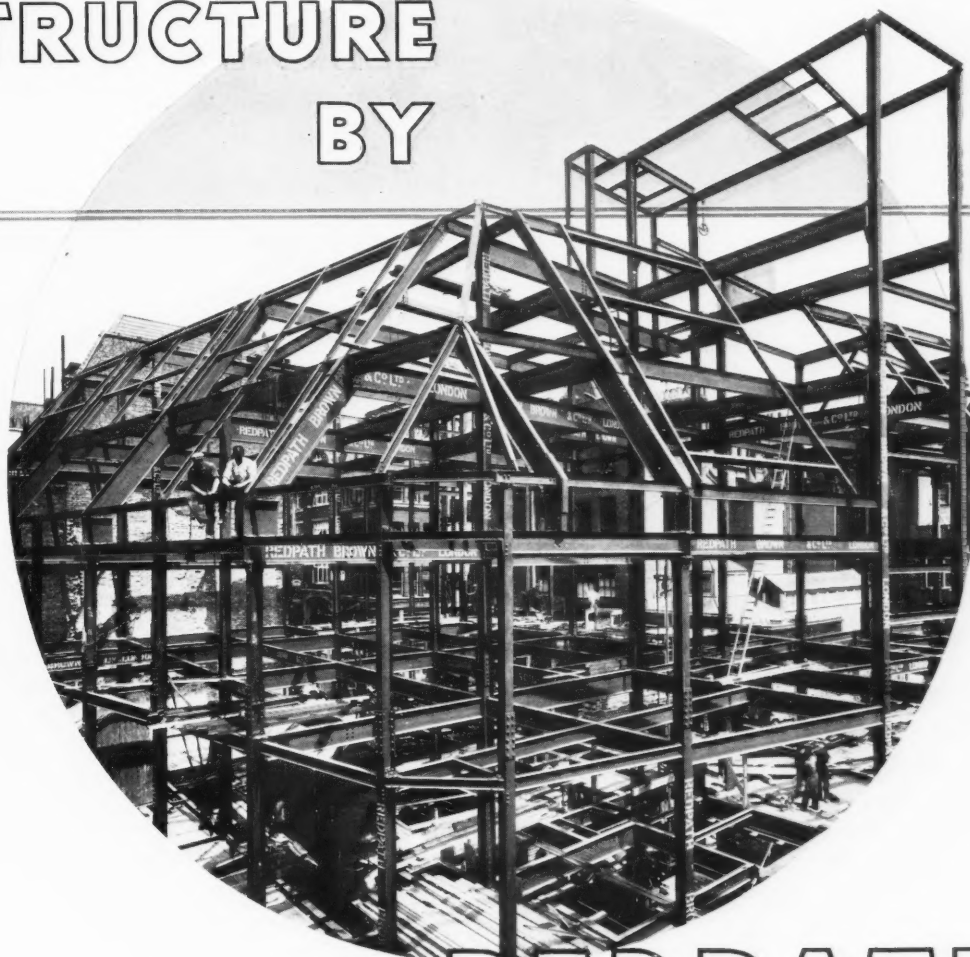
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Some two hundred miles north-west of Athens stand the Meteora, or Monasteries in the Air. Once there were thirty monasteries, now there are six. The others are no longer accessible and crumble to ruins, while the natural foundation endures. About a hundred years ago, when Curzon, a bibliophile, visited some of these monasteries, access was obtained by means of a net and winch controlled by the monks above. The monks, after achieving their objective on these high places and having created their own haulage system, thus made complete their impregnability; and those monasteries no longer inhabited

could only be reached today by the most foolhardy Alpine climbers.

The churches, which are entirely surrounded by the monastic buildings, are minute in size and follow the classic plan. The Monastery of S. Baarlam, shown here, was built in the fifteenth or early sixteenth century, and has only recently had constructed a more satisfactory method of approach. It houses today some twelve monks. Other churches typical of this survival in Greece of the heritage of Byzantine art are discussed and illustrated on pages 136-139.

## M O N A S T E R I E S I N T H E A I R

Up till this moment THE ARCHITECTURAL REVIEW has deliberately kept itself independent of the war. It has not of course remained untouched by the war, if only in the literal sense of having lost a lot of itself when its printers were bombed some months ago, but it has adopted a policy of not giving its space to war-time architectural topics. It did this in the belief that the technicalities of air-raid shelters and the like were not in any case within its province and that the larger planning issues were dependent on circumstances too remote for discussion to prove very useful; also in the further belief that the best service it could perform was to try and maintain the cultural values of peace-time lest these become submerged in the expediences of war-time, with its distorted values. For there is always the danger, in concentrating exclusively on the progress of the struggle, of finding afterwards that the very things we were fighting for have somehow evaporated.

But recently a remarkable degree of public interest has been aroused in the idea of reconstruction and in plans for a better world after the war: interest so intense as almost to take on the character of a revivalist movement. For this reason, even if it is still too early to make actual plans, and even if the self-delusion characteristic of revivalist movements is also discernible in this one, it still appears the right moment for beginning a discussion of some of the general issues raised. For advantage should be taken of the receptive attitude of public opinion to establish all possible safeguards that reconstruction, when the time comes, shall be strictly in the public interest. And now that public opinion has itself caused the subject to be broached, the moment will remain the right one even if world events temporarily put planning in the shade.

The July issue of THE ARCHITECTURAL REVIEW will therefore be a special issue on reconstruction, in which an attempt will be made to survey the planning issues now most ripe for discussion, as well as the planning principles involved. Although, if we can rely on Lord Reith's recent statement of his Ministry's aims, the authorities do intend that their planning shall be something more than the usual rosy optimism of the politician, and are inspired by worthier motives than the maintenance of morale, there still remains the danger that in thinking about the future we become blind to the present-day realities out of which the future must grow. In the article below, therefore, the subject of planning is introduced to begin with in the shape of an attempt to define the real implications of that word and the scope it can usefully be given in today's circumstances.

## Planning and Reconstruction

THE two words that form the title of this article are the catchwords of the moment. So much so that there is a tendency to speak of them as a panacea, which only has to be applied for all our troubles to vanish. That is the danger lurking in all catchwords: they make talk a substitute for action; indeed, their function is to make people think that talk *is* action.

This is not to decry planning, only to point out the self-evident fact that there is no such thing as "planning" in the abstract; there is only the plan itself—the particular plan for the particular set of circumstances—and even that remains quite academic unless it is accompanied by the machinery for putting it into operation. In this more than in anything else the proof of the pudding is in the eating. The smell of cooking does little to satisfy hunger. The truth is that post-war planning is a contradiction in terms. Planning is merely the purposeful control of *existing* forces. We cannot make plans for after the war because that time is far too remote, not so much in years as in the circumstances that will attend it. We can only guess at the kind of world that will present itself to the planners of the post-war period and the forces they will have to control. We only know that it will be a world far too different from our own for it to be anything but a waste of time for us to set about doing the planners' work for them.

And it will be worse than a waste of time if we allow day-dreaming about the future to distract our attention from urgent problems of the present. For there *is* an answer to the apparent anomaly that our sincere wish to put an end to the old-established practice of *laissez-faire* and exercise the control that is obviously needed should immediately be met by charges of Utopianism. That answer is another self-evident fact: that the future is constantly growing out of the present and becomes whatever the present makes it. Utopianism, or wishful-thinking, or pie-in-the-sky, or whatever we care to call it, is only the result of separating the two, of looking at the future as a thing that exists in its own right, independently of the factors that are shaping it all the time. It is characteristic of Utopias always to remain exactly the same distance ahead.

So the answer is that there is plenty for the planning expert to turn his mind to if he redefines his terms of reference to mean, not the making of plans, but the making of a world in which such plans as he would like to make could be put into operation. This reads rather like an incitement to political action, but we are talking all the time of the so-called "planner" and of the action he can take within

his own sphere. This action seems to be twofold. The ground has to be prepared both with the *knowledge* without which the future planning will not be equipped to serve any useful purpose, and with the *machinery* without which it will not operate at all: in fact, with research and legislation.

Research involves both technical and social study. Architects do not yet know nearly enough about the raw materials of their art, especially about the new resources of modern science. The individual architect is far too frequently in the position of making his own experiments without the benefit of the experiences of his colleagues. Seldom should an actual building job have to serve the purpose of a field experiment in building technique, as so many modern buildings have had to do for lack of proper codification of technical knowledge. Efficiency apart, it is unfair that the building occupier should be the permanent victim of the errors inseparable from a trial-and-error system.

Neither do architects—nor administrators—yet know nearly enough about the needs their work has to fulfil. It is a commonplace that architecture is a social art. But there is a sad gap between the acceptance of this as an ideal and the interpretation of it so as to relate the practice of architecture as closely as possible to people's actual needs. To fill this gap any amount of investigation is needed into fundamental things: not only standards of accommodation, of equipment and of social facilities of all sorts for domestic, educational and other functional purposes, but also standards of quietness and privacy and space to move and breathe; in fact, the setting up of new standards of civilization, as expressed in its physical surroundings, such as our pre-war mentality never dreamed of.

Far too often "housing"—another over-simplified catchword—means either the solution to a drawing-board puzzle, or the fulfilment of some local government policy, or the "development" of a piece of land because it happens to suit someone's interest: seldom does housing as an architectural task begin by orientating itself directly to the needs of the people who have to be housed. And what is true of housing is true of much else besides. It is not without significance that such standards as we can already claim to have set up and worked to are *minimum* standards. A complete professional reorientation is needed for architecture to fulfil its human purpose of translating these into *ideal* standards. It is a reorientation based on profound scientific and social research. But parallel with research comes legislation: not only social legislation to ensure that the standards of accommodation become intentions as well as ideals and that the



codified knowledge mentioned above is equitably applied, but co-ordinating legislation to enable all the specialists in all departments of planning and research to unite the particular needs and means they are concerned with into a workable system of planning machinery, and finally economic legislation to ensure, for example, that the building industry and the supply of materials will be adequately organized to cope with the task that will face them.

Much of this can be done now; in fact, much of it *must* be done now. The arguments have been stated often enough in favour of getting the machinery of planning prepared in advance, and they are overwhelming. It is not only that we shall want to start at once when the time comes to switch over from a war economy to a peace economy, and must be equipped to do so; it is not even that whether we want to start at once or not we shall be overtaken by events and the work will be begun, whether for good or ill, whether purposefully or haphazardly—we remember too well the lessons of the last war when the reconstruction programme completely collapsed for lack of a building industry organized to cope with the occasion in any but a hand-to-mouth way and for lack of planning and social legislation that could shape an orderly pattern for the many out of the good intentions of the few—it is not only these, it is that the so-called reconstruction process is beginning now in the shape of war-time rearrangement of industry and the housing that follows it, and we cannot afford to let uncontrolled development negative the effectiveness of control later on. We cannot let the wrong forces take control.

That the post-war task cannot be left to organize itself without carefully planned machinery is clear from our experience in the one architectural activity that has been perpetually before our eyes in recent years: that of A.R.P. For A.R.P. and Evacuation provide us with a sample of the planning process in miniature. The sequence is the same: the necessity first for investigation into actual needs, then for investigation into available ways of meeting those needs, and finally for legislation to enable the resulting plans to be put into effect together with efficient organization of the actual work. We cannot help judging the competence of local authorities and other responsible bodies to plan in the future by their success or failure in this one sphere, which, though limited in scope, is the same in kind as those that will have to be tackled after the war. There have been some successes in A.R.P. and Evacuation. But we all know how much of the planning has been amateurish, in how many cases expert advice has been ignored, how slow some authorities have been to make concrete plans instead of improvising when the emergency had already arisen, and how often irrelevant interests and prejudices have been allowed to interfere with the straightforward application of means to needs. Our experience in A.R.P.\* should teach us several useful lessons about the difficulties we shall have to face in any attempt to organize a nation-wide reintegration of technical resources and social aims. One of these is the inadequacy of our present multiplicity of local authorities, with varying degrees of responsibility but all completely unequipped for co-operative planning, and the necessity for central or regional administration that shall be both disinterested and broad in scope and vision. The undoubted desirability of not submerging regional differences of custom and temperament in a stereotyped national planning system is too complex a subject to discuss at the present moment, but it is obviously not met by a continuation of the present *laissez-faire* system. This only encourages parochialism and petty obstruction and makes regional patriotism a handicap to any kind of planning, whereas it might be the actual basis of enlightened reconstruction within the framework of an over-riding authority.

That the latter is an absolute necessity provided its aims are disinterested is nowadays indisputable. In the same way that throughout history mechanical invention—at least as far back as the invention of the first firearm—has tended to make democratic action harder by concentrating power in the hands of fewer people: instead of any man being as good as his neighbour—and as powerful—the few properly equipped are more than a match for the many, whether the few be the Chicago gangster, the Nazi *panzer* division or Mr. Wells's aviating *Samurai* of the future—or, for that matter, the B.B.C. with its machinery

for disseminating ideas—and democracy has therefore to work more strenuously to keep mechanical forces operating in a beneficial direction: in the same way territorial planning has to be substituted for *laissez-faire* development simply because the power to do harm in the possession of forces that get out of control has increased out of all recognition. It is a power that manifests itself in various ways, in the onslaught of an arterial road on the face of a countryside that has been self-sufficient for generations, in the dependence of housing on the economics of the industry it serves, in the influence of speculation values on the development of land, in the monopoly control of building materials which tends to separate production from demand.

All these are matters for the experts, but it is the general public who will have, by demanding the appropriate legislative action and control, to make the experts' planning machinery workable. That is why the recent focussing of public opinion on the future is the cue for the discussion of planning principles, despite the ever-present dangers of Utopianism. Such discussion can keep the public informed of the advantages science is able to bestow on it if only the world is willing. It must also assume the responsibility of choosing whether to confuse the public mind with catchwords that serve as dust thrown in its eyes, or to clear its mind by focussing the discussion on the essential issues. If the experts, even without going outside their own provinces, keep before them the principle suggested above they cannot go far wrong: the principle, that is, that plans arise from the needs and circumstances of the moment and are, if they are to have any reality at all, an answer to needs expressed from below, not a pattern imposed from above.\* This obvious principle, it may be added, has the advantage of providing a simple solution to any number of problems that have worried the experts in the past—or, rather, of revealing that they are not serious problems at all. To take a simple instance, a controversy that has for some years intermittently occupied the experts' attention and provided a favourite subject of correspondence in the press, is that of cottages *versus* flats. The upholders of each put themselves in opposing camps as though they were in fact mutually exclusive alternatives. But if planning is approached realistically, not academically, as the scientific response to evident needs, such an artificial controversy disappears. Cottages are required for certain people—those who want an accessible garden, for example, so that young children can run in and out—and flats are required, perhaps, for young couples with urban tastes who prefer compactness to the responsibility of running a self-contained establishment, and for people living by themselves. Good planning provides either according to previously ascertained needs. Written down like this it seems too obvious to be worth stating, but it is surprising, nevertheless, how seriously this and similar academic issues are often discussed, issues that are in fact no more real than if architects were to argue in the abstract about the relative merits of square and oblong buildings.

The occasion of the present public interest in planning and reconstruction is the destruction by bombing of the congested centres of several of our big cities, and the obvious opportunities rebuilding will present. But the bombing (except in a few completely devastated areas) is only important in this connection for the sake of the stimulus it has provided. The task of both experts and public is to understand that if it were true that it is the bombing that makes reconstruction possible now, then it would follow that the only thing that prevented it being undertaken previously was the high cost of explosives—which is ridiculous. The obstacles in the way of proper planning have not been destroyed in the bombing. The main task, which has hardly begun, is that of making sure they do not continue to operate as obstinately as before, whether they are traceable to lack of technical data, to confused social and economic values, or to absence of the legislative and administrative machinery whose function it is to relate the one to the other.

J. M. R.

\* I am aware that research is not the whole story. The process of translating needs into means is itself subject to alternative opinions, which must be guided by knowledge of the principles involved. Town-planning, in particular, has always suffered from the lack of properly formulated principles; instead it has always been an *ad hoc* activity; and the study of planning principles is one of the things that must accompany the study of people's needs. But for purposes of argument the generalizations employed here must suffice.

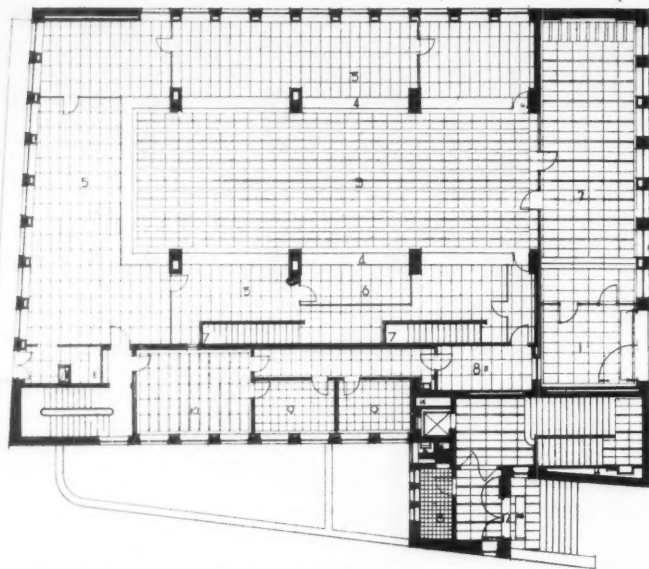
# BANK BUILDING AT JERUSALEM



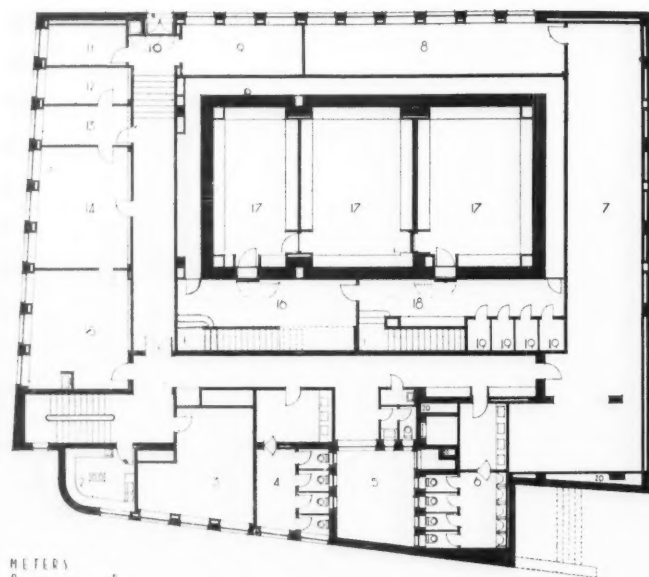
**ERIC MENDELSON, ARCHITECT**

This is the new headquarters in Jerusalem of the Anglo-Palestine Bank. The building is situated between Jaffa Road (one of the principal streets of the modern city) and Storrs Avenue, and is a reinforced concrete structure faced, like the same architect's previous Palestine buildings, with slabs of the local stone. It also resembles its predecessors—notably the Haifa Hospital and the Medical Centre on Mount Scopus—in presenting interesting





GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

# KEY TO PLANS

## Lower Ground Floor.

1. Stairs from banking
2. Staff kitchen [hall
3. Dining-room
4. Female staff cloak-
5. Courtyard [room
6. Male staff cloak-
- 7/8. Archives [room
9. Bicycle stand
10. Staff entrance
11. Porter
- 12/13. Telephone
14. Despatch room
15. Post room
16. Ante-room bank
17. Safes [safe
18. Ante-room, public
19. Writing cubicles
20. Duct
21. Manager's lavatory
22. Cleaner

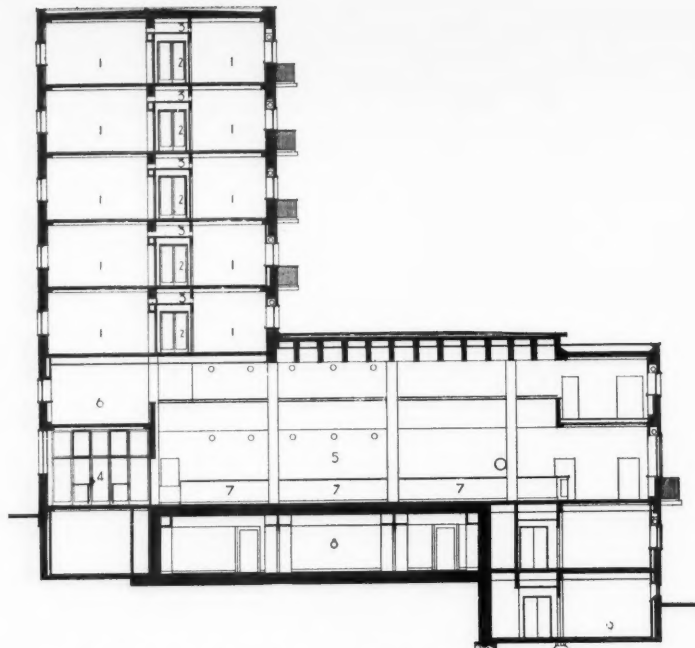
## Ground Floor.

1. Main bank entrance
2. Lobby
3. Banking hall

- Counters 4
- Office space 5
- Cashier 6
- Stairs to safes 7
- Waiting room 8
- Manager's offices 9
- General manager's 10
- office
- Book-keeper's safe 11
- Entrance to office 12
- block
- Caretaker's lodge 13
- Duct 14
- Vertical pipe-duct 15

## Section.

- Offices to let 1
- Corridor 2
- Air-conditioning and 3
- horizontal pipe-duct
- Lobby to banking 4
- hall] Banking hall 5
- Gallery of banking 6
- hall] Counters 7
- Lower ground floor 8
- Basement for heat- 9
- ing and air-con-
- ditioning



LONGITUDINAL SECTION



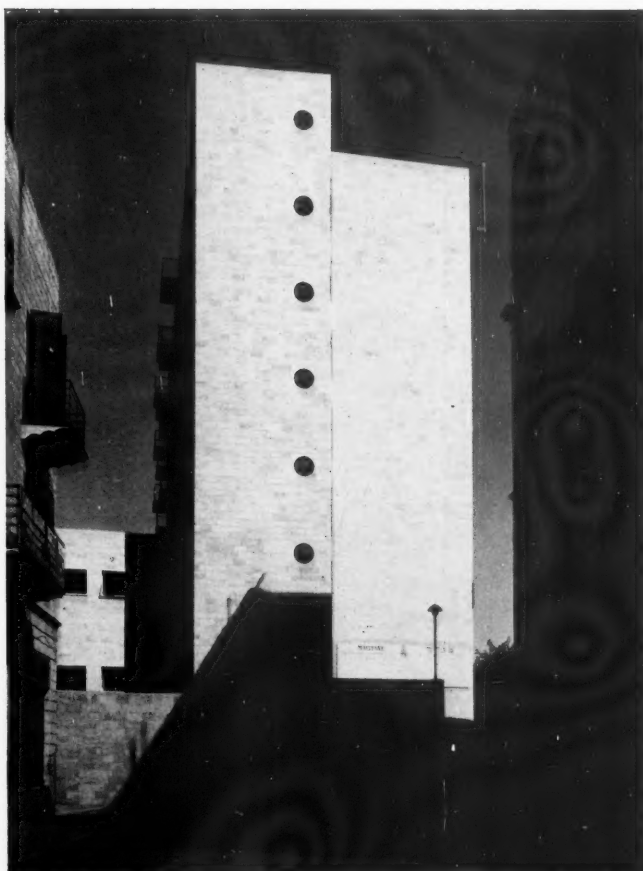
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evidence of modern architecture's ability to adapt itself to local conditions. Though uncompromisingly modern in its structure and planning, its general character, which is partly derived from the small openings the sunny climate demands, is yet markedly Levantine.

The site was a steeply sloping one: there was a difference of 16 feet between the Jaffa Road and the Storrs Avenue levels. The height on the Storrs Avenue side was also restricted to 42 feet, while on the main front a height of



1 (page 119), the main elevation to Jaffa Road, comprising the vertical office block which screens the lower bank block behind. The building is faced with grey Jerusalem stone. Windows are of steel, and doors, flagpoles and ornaments of bronze. 2, a view looking upwards through the metal grille that covers the small courtyard alongside the banking block. 3, the exterior from the side street, showing both the low banking block and the tall office block. The circular windows light the main office stairs.



3

83 feet was allowed. These two factors determined the division of the building into two distinct parts: a low square block at the rear containing the banking-hall and other bank offices, and a vertical block in the front containing five floors of offices for letting. The offices are planned either side of a central corridor, and have balconies to each floor at the rear, overlooking the roof of the banking-hall block. Both offices and bank are air-conditioned.

4, decoration on the main door reveal. It is a religious symbol, in bronze on a stone background, depicting the Hebrew name of God.



5, the main entrance doors to the bank: bronze ornaments in relief. The doors themselves are of oak.



6, a detail, looking up, of the flagpole which decorates the corner of the Jaffa Road front. It is in bronze, and incorporated in its design are projectors for floodlighting.



7, windows with ornamental grilles along the banking-hall front.

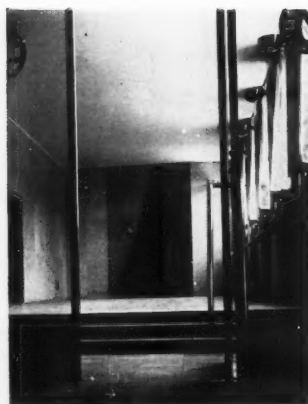




8

8, the main banking hall, occupying the centre of the rear of the two blocks, and surrounded on three sides by offices and on the fourth by a large entrance vestibule. The walls are faced with cream-coloured Carmel marble, the columns and counters are of black *Portor Français* marble, and the floors of quartzite with marble strips in rose Jerusalem and *Portor Français*. The double benches seen in the centre of the floor are of plywood.

9, the vestibule to the banking hall, which runs the whole length of one side. It has walls faced with Botticino marble and floors of quartzite. The doors are of white bronze. On the wall is a map of Palestine designed in various metals. 10, the ante-room to the general manager's office. The floor is of cream-coloured Carmel marble with strips of rose Jerusalem. The chairs are of maple, upholstered in black leather. 11, looking up the well of the office-block staircase.



9



10



11

Usually when an individual building appears to demand the critic's attention it does so either because of its intrinsic qualities as a design or because it epitomises the period it belongs to. But there is also a more elusive quality that some buildings have which is quite independent of merit or period. It might be called personality, and is perhaps derived from the building's functional character being subtly but unmistakably echoed in the formal guise with which it chooses to invest itself. The following is a portrayal of such a personality, as found in a little-noticed building in Cheltenham, a town famous for architecture of less recondite charm. It might be sub-titled a study in reticence.

## MASONIC TEMPLE: 1829

### A Cheltenham Character Study

By Hugh Casson

IT stands on the corner of a narrow street wearing the shabby mysterious air of a seedy conjuror. The walls, thick and almost windowless, are stained, and queerly shaped as if they concealed some secret within their breadth. Strange symbolic carvings hang upon them, and even the pigeons, which strut and chuckle upon the parapet, look as falsely innocent as if they had just emerged from a magician's hat. It is a sad building, its heavy face enlivened only by the dancing shadows thrown by the branches of an acacia tree. The casual passer-by would probably take it to be a furniture depository, or the chapel of a religious order which had seen better days. An architect, if he bothered to study it, might reflect that its greco-oriental style was reminiscent of those grimy churches by "Greek" Thompson in the suburbs of Glasgow. It has in fact little beauty, and such architectural qualities as it possesses do not shine among the elegant squares and terraces in which Cheltenham is so rich. It is not particularly remarkable even for its oddity,\* though contemporary guidebooks were

\* First prize for this in Cheltenham must go to the statue of King Edward VII on the Promenade. This portrays the monarch in a Norfolk jacket and eyeling knickers, resting an understanding hand upon the shoulder of a small child of unknown parentage.



One of the pair of small mahogany arm-chairs in the main ceremonial hall.

clearly puzzled by its appearance. One describes it as "a heavy sombre erection in imitation of a Roman Mausoleum." Another, a little more enthusiastic, remarks that "it is fitted up internally with great taste and built in a very substantial manner."

The Masonic Hall is worth more encouraging tributes than these, for it has, despite its squat proportions and stern forbidding walls, a placid dignity which is curiously impressive. It was designed evidently to be free-standing, but is now built up on two sides by houses. It is constructed of brick and stone, with a slate roof hidden behind a parapet. The base is heavily rusticated and from it, at each corner, rises a square projecting turret which tapers slightly towards the cornice, and is decorated with deep arched niches and panels carved in relief with masonic symbols. In the centre of the main elevation is a blind arch, carved in false perspective, and flanked by two columns crowned with unusual capitals. This piece of fantasy combines with the Egyptian style of the turrets, the unfriendly façades and the symbolic reliefs to accentuate the air of brooding mystery which is seemingly distilled from the stained and flaking stonework. Like the old Egyptian Hall (which in style it closely resembles) it expresses its function almost with defiance. Something queer, it is obvious, goes on behind those stony and impassive walls. Those turrets must surely contain secret chambers, their damp silence disturbed only by the rasp of a rusty hinge or the squeaking of bats. Even a gibbering face at the solitary window would be no surprise.

And yet, once within the doors, this sinister atmosphere disappears immediately before the friendly warmth of the interior. The honest simplicity of the plan disarms the suspicions and instantly restores the confidence of the visitor. The entrance door opens into a lobby from which stairs descend to the basement—kitchen and cellars. A long hall serves the main staircase, a small retiring room and the banqueting hall. The walls of this low, almost square-shaped room, which is the encampment of the Knights Templars, are carefully painted to represent canopied stalls. Hung in each is a gaily painted shield. On either side of the window are recesses containing the painted effigies of knights resting on their tombs beneath draped flags. The drawings are stylised, thin and naive, but the heavy varnish over them, mellowed by the smoke of a hundred years, has given them a richness which adds greatly to their decorative effect.

The room contains an assortment of furniture, only a few pieces of which are original. The dining tables presumably formed part of the furniture purchased by the lodge in 1826 for the

total sum of £35. They are of mahogany with fluted edges, and their standard dimensions enable them to be fitted together to make a banqueting board of almost any size. Their surfaces are almost black with wear, and thickly pitted with dents made by the banging of the old thick-stemmed firing-glasses. Those of the original chairs which have survived are also of mahogany and with their pleasantly carved "Trafalgar" legs are good sturdy examples of their period. The room is lit by day from a huge window hung with dark red curtains, and by night from chandeliers.

Like most rooms of its type it needs elaborately set tables and a full company of diners to bring it to life. Then the dark, almost oppressive tones of the walls and furniture recede to their proper status as a background to the shine and flicker of glass and silver and the gay patterns of ceremonial garments.

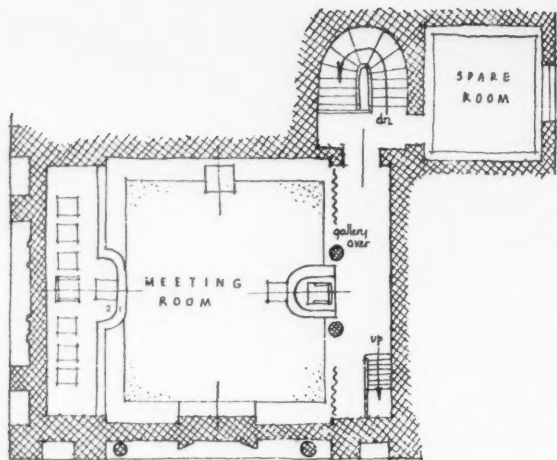
The main staircase is semi-circular in plan, and sweeps gently up to the first floor beside its elegantly wrought iron balustrade. The landing serves a small committee room immediately over the retiring room below, and then leads directly into the main ceremonial hall of the building. This is again almost square in plan, but lofty, and less intimate in scale than the banqueting hall below. It was designed of course as a background for elaborate ceremonies, but even when empty and deserted it does not lack dignity. The plan is formal, with thrones and benches symmetrically placed. A small gallery is provided, supported on Ionic columns and guarded by an elaborate railing. The colours are gay and clear. The ceiling is pale blue and starred with gold. The walls are of a slightly darker blue and panelled, above a crimson dado, with gold name-boards. The carpet is squared black and white and bordered with crimson. There are no windows, and the room is lit simply by white unshaded globes grouped round the gold centre-piece of the ceiling.

Most of the furniture is contemporary with or older than the building. The official chairs of the Senior and Junior Wardens are similar in design, being made of gilded wood and decorated with symbols of the craft. There is also a fine set of mahogany chairs of the same period with simply inlaid backs, two small Chippendale arm-chairs and, in the gallery, a small organ in an elegant mahogany case.

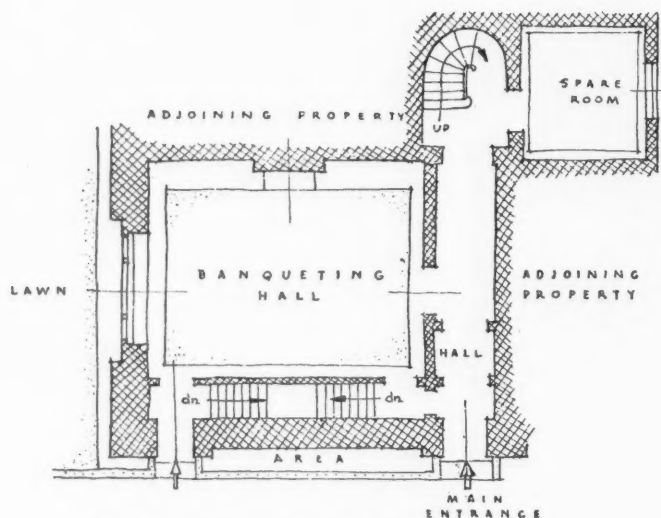
These rooms, like the building itself, are not handsome above the average. Photographs cannot, of course, do justice to them, for their effect is one of atmosphere and association rather than one of dramatic lighting or the elaborate contrasting of textures. They form, however, a set of interiors, designed for an unusual and specialized purpose, which for over a hundred years have







**FIRST FLOOR PLAN**



**GROUND FLOOR PLAN**

remained almost untouched, and as a record of this kind their value is considerable.

What is known of the history of the building is comparatively uneventful. Its erection followed a proposal made by Brother Baynes in the year 1818. A building committee was appointed, a site was purchased for £670, and Brother Underwood was asked to prepare plans and estimates. Mr. Underwood is reputed to have been concerned with the design of Holy Trinity Church in the same street, but his principal claim to artistic fame was the fine map of Cheltenham which he had a few years earlier prepared for the Post Office.

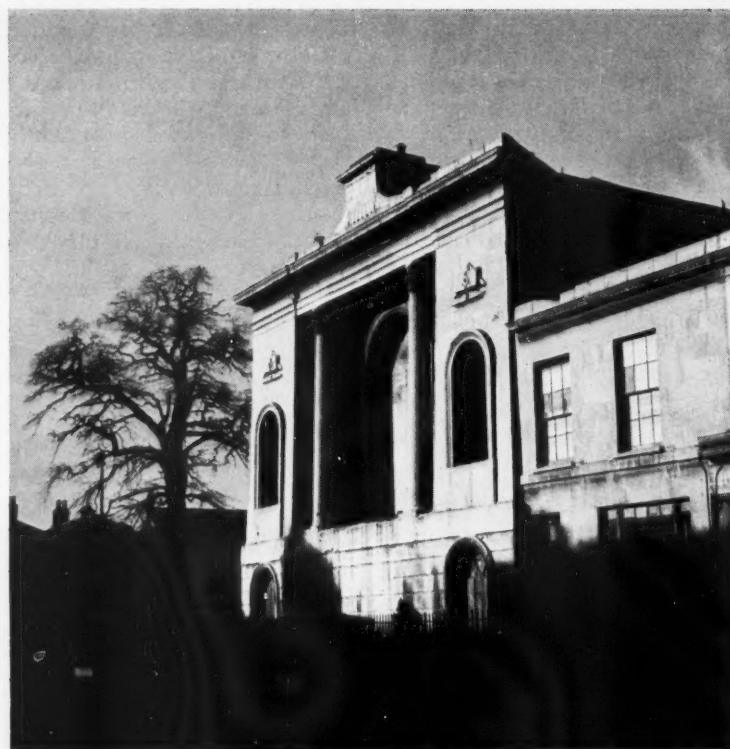
His estimate was for £2,200, and it was proposed that the money be raised by issuing shares of £25 each. The plans were then submitted to H.R.H. the Duke of Sussex for his approval, and he declared himself as "deeply and most sincerely impressed." Building appears to have continued without difficulties, and the Brethren held their first Lodge in its new home on November 5th, 1823, "the evening being spent in great conviviality." There was apparently no formal opening ceremony, though a blank page was left in the minute book as if in anticipation of such an event. The only trace of it in fact which remains is the indirect one of a tombstone in a local churchyard recording the name of one of the Brethren present at that inaugural meeting.\*

\* The tombstone reads: "Underneath is consigned to his primeval atoms WILLIAM QUANTRILL, who quitted this sublunary scene on March 30th, 1825, aged 31 years."

Ten years later the Knights Templar founded their "encampment" by taking over the ground floor of the building and re-decorating it in a manner suitable to their order. After a few lean years, during which part of the building was let off as a dancing academy, and the knights' wall paintings were papered over, the Lodge

celebrated its renewed prosperity (and the nuptials of the Prince of Wales with Princess Alexandra of Denmark) by spending £5 on illuminating their premises.† The only event of importance since

† For this and other facts concerning the history of this building I am indebted to "Cheltenham Masonic Hall," by Mr. L. W. Barnard.



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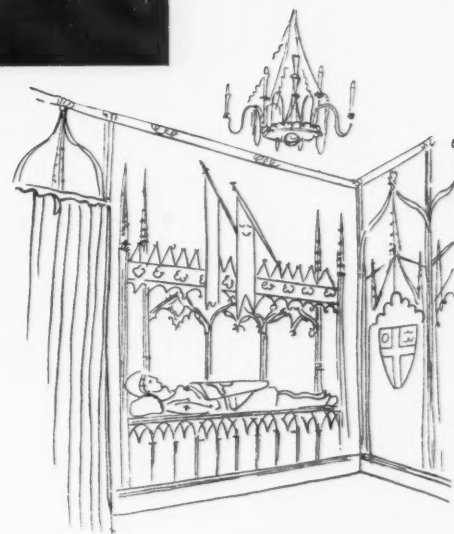


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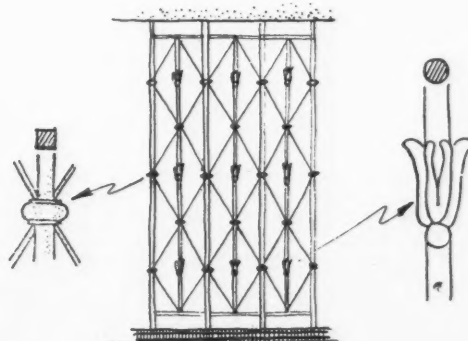
2 and 3. "In the centre of the main elevation is a blind arch, carved in false perspective, and flanked by two columns crowned with unusual capitals. This piece of fantasy combines with the Egyptian style of the turrets, the unfriendly façades and the symbolic reliefs to accentuate the air of brooding mystery which is seemingly distilled from the stained and flaking stonework." 4. "It is a sad building, its heavy face enlivened only by the dancing shadows thrown by the branches of an acacia tree. The casual passer-by would probably take it as a furniture depository, or the chapel of a religious order which had seen better days. An architect, if he bothered to study it, might reflect that its Greco-Oriental style was reminiscent of those grimy churches by 'Greek' Thompson in the suburbs of Glasgow. It has in fact little beauty, and such architectural qualities as it possesses do not shine among the elegant squares and terraces in which Cheltenham is so rich." 5. Details of the wrought-iron balustrade to the curving staircase which is semi-circular in plan and sweeps gently up to the first floor. 6. "On either side of the window (in the banqueting hall) are recesses containing the painted effigies of knights resting on their tombs beneath draped flags. The drawings are stylised, thin and naïve, but the heavy varnish over them, mellowed by the smoke of a hundred years, has given them a richness."



6

"We have mentioned in terms of strong approbation the style and character of the buildings, fittings and furniture which render the Masonic Temple in this place so admirably adapted for giving full effect to our beautiful ceremonies."

Letter in FREEMASONS' QUARTERLY REVIEW, 1857.

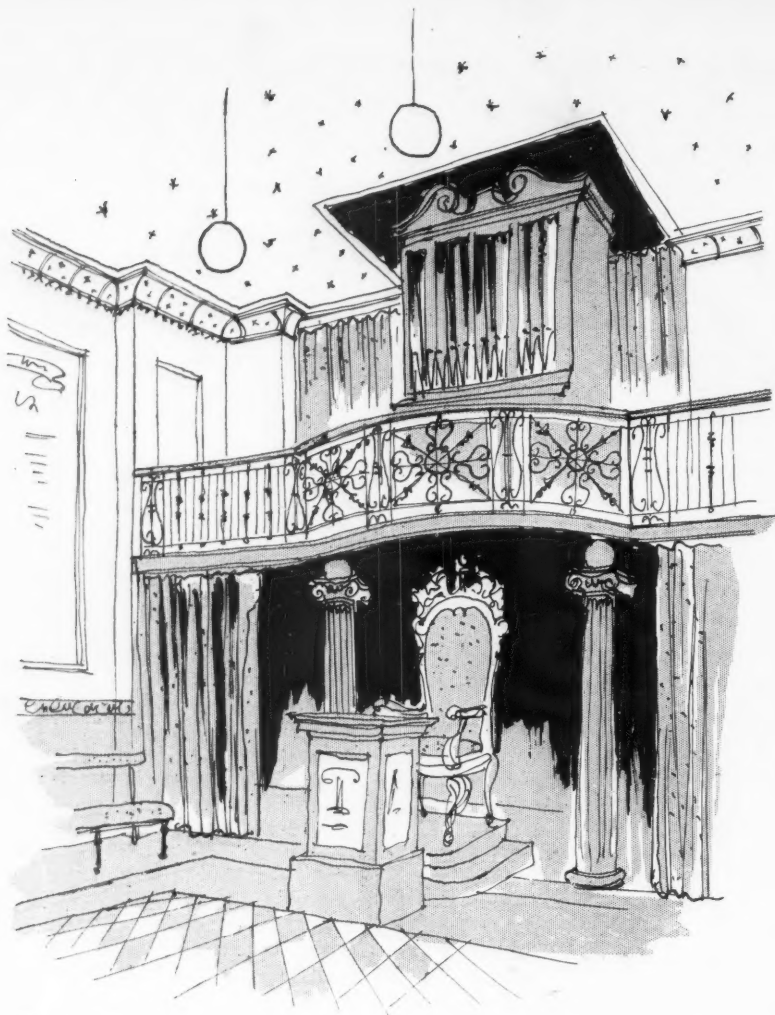


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then has been the granting to the Lodge, in 1864, of a centenary warrant.

Such in brief is the history of the Masonic Hall, less interesting perhaps than the building itself, and certainly less important. It should be remembered, however, that the Brethren who undertook the task of building their own Hall





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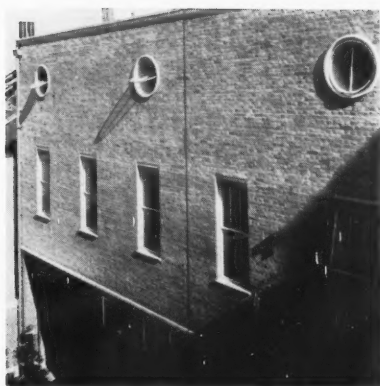
7 and 8. The main ceremonial hall on the first floor. "The plan is formal, with thrones and benches symmetrically placed. A small gallery is provided supported on Ionic columns and guarded by an elaborate railing. The ceiling is pale blue and starred with gold. The walls are of a slightly darker blue and panelled, above a crimson dado, with gold name-boards. The carpet is squared black and white and bordered with crimson. There are no windows, and the room is lit simply by white unshaded globes grouped round the gold centre-piece of the ceiling." 9. One of the old thick-stemmed firing-glasses.

were wise men who well realized that privacy for the secret society is not the luxury that it is for the individual. It is an essential, because the mainspring of a secret society is its exclusiveness. Passwords are not enough, nor are strange initiatory rites. There must be, for full enjoyment, a meeting room which strangers may not enter. Every secret society worth the name has realized this, from the schoolboy gang crouching in the coke-hole to the Knights of the Garter assembled in St. George's Chapel, Windsor. But privacy of this kind is expensive and few societies can afford to buy it more than piece-meal. Meetings must therefore be held in hotel rooms, restaurants, village halls and the like, cold impersonal apartments who will open their doors with equal enthusiasm to whoever can pay the rent, and whose walls still seem to echo to the secret ceremonies of the previous tenants. So make-shift a background destroys in advance the proper appreciation of an official evening. Regalia has to be unpacked from unromantic little suitcases, ceremonial garments concealed beneath raincoats or donned in draughty corridors. Meetings in fact which are designed to impress by their solemn dignity become half-hearted, furtive and ridiculous, with the result that soon there is nothing left of it but a tarnished chain of office and a half-filled minute book. The quality of this Cheltenham hall, as a piece of architecture, is that it is a truly functional building in the special sense of evoking and preserving the esoteric atmosphere upon which the successful fulfilment of its purpose depends.



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## POLICE STATION. JULIAN LEATHART

**SITE**—At Leyton. The building is a sub-divisional station for the Metropolitan Police and provides about three times the accommodation available in the former station.

**PLANNING**—On the lower ground floor are the boiler house, A.R.P. rooms, and stores for the station. A garage for police cars is accessible from the internal courtyard. On the ground floor are the administrative rooms, charge-room and

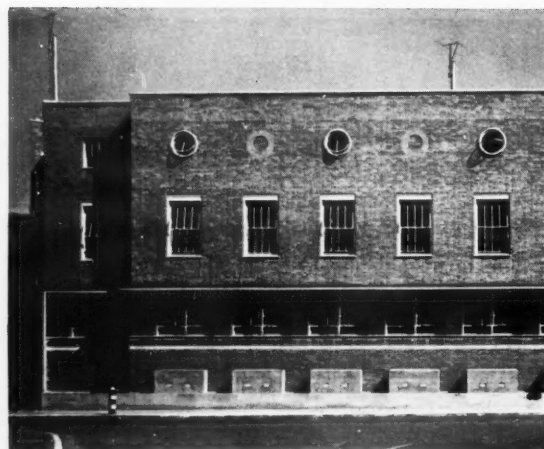
cells, parade-room and special staff rooms; and on the first floor C.I.D. offices, special instruction rooms, and canteens and recreation rooms for the officers and constables.

1 and 4 are views of the main elevations. 2 is a detail of the courtyard elevation, and 3, the entrance to the staircase leading to the married quarters.



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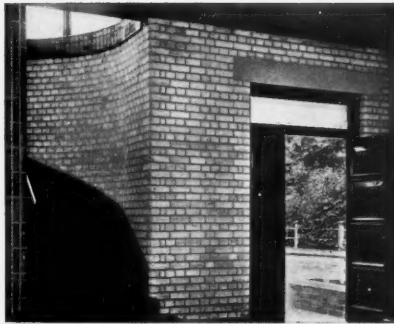
**CONSTRUCTION AND FINISHES**—Steel frame, with brick external walls, 13½ in. thick, metal windows. Window cills, copings and other dressings are in Portland stone. The exterior is faced with Essex primrose stocks, blue bricks being used for the darker portions to the ground floor. The floors and roof are of reinforced concrete, the roof being finished with patent asphalt paving. On either side of the main entrance are three free-sculptured figures in low relief by Lawrence Bradshaw, representing on one side the policeman of the past and on the other the policemen and women of the present. In the cells are floors of asphalt, partitions of ivory glazed blocks, and glass-brick windows. The screen-wall, gas-lock and handrails at the main entrance are temporary war-time expedients, as also are the coverings to the sub-ground floor windows.



6

5. The staircase tower. 6. Detail of the main elevation.

# CANTEEN. RAGLAN SQUIRE



## CURRENT ARCHITECTURE



1. The hall, showing the main stairs leading to the dance hall and bar on the first floor.  
2. A general view of the canteen building.  
3. The works dining-room. 4. The staff dining-room adjoining.

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**SITE**—The canteen is at the east end of a factory adjacent to a main road and stands on level ground. The only limitation necessary in planning was that the ground area covered by the building should be kept as low as possible in order to provide space on the site for a car park. In the circumstances a straightforward rectangular plan was adopted.

**PLANNING**—The purpose of the canteen is to provide a day and night service of refreshments for the factory workers, together with amenities for billiards, table tennis, etc. All these facilities have been arranged on the ground floor. The first floor is occupied by a dance hall and bar for use on special occasions only and can be completely shut off from the canteen when not in use. The approach to the dance hall and bar is from the staircase in the main entrance hall. In planning provision was necessary for three separate entrances to the building—namely, an entrance serving the staff and directors' dining-rooms approached from the east side, a workers' entrance approached from the factory side, and a goods entrance situated away from the road.

**CONSTRUCTION AND EXTERNAL FINISHES**—The construction is of brick-bearing walls throughout, 14 in. externally and 9 in. internally, with 4½ in. brick partition walls. Pre-cast reinforced concrete beams are spanned between the walls at 13 ft. centres, or steel joists where wider spans are

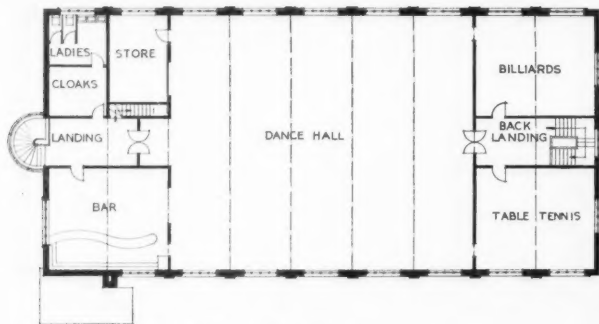
required. The walls are finished with special facing bricks of three shades of colour, principally buff, but with a certain proportion of two shades of light grey. The metal windows are painted green and the doors are in polished mahogany.

**INTERNAL FINISHES**—Plaster and painting have been almost entirely eliminated, special coloured bricks being used as facings in all the rooms. Colours have been chosen to suit the rooms; for instance, in the billiard-room a buff-coloured brick is predominant with green pickings round the windows and radiator recesses. In the works dining-room buff-coloured bricks with terracotta pickings form the colour scheme, and in the staff dining-room a pinkish-coloured brick has been used as a frieze, with a cork-wall finish below. In the kitchen the walls are faced with white glazed tiles. All floors are finished with wood blocks except in the dance hall, where maple strip has been used. The window curtains in the dance hall are in gold damask, and the stage curtains are in three shades of buff and grey velour. Coloured lighting in the ceiling troughs in the dance hall provide the colour in this room, all other finishes being in neutral shades.

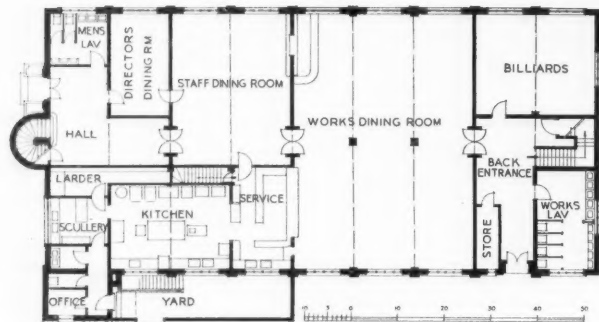
**EQUIPMENT AND SERVICES**—The building is centrally heated with a low-pressure hot-water system run from a calorifier in the basement from the



## CANTEEN. RAGLAN SQUIRE



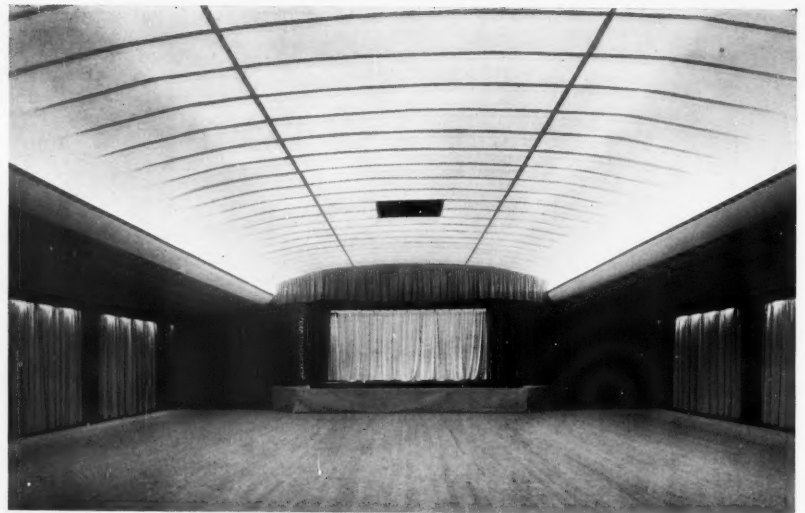
FIRST FLOOR PLAN



GROUND FLOOR PLAN

factory's main boiler house. The water supply also comes from this calorifier. The kitchen equipment is run off gas or steam, and there is a hand-operated lift which connects the kitchen with the dance hall bar on the first floor and similarly the cellar with the bar. A ventilation system is installed in the dance hall.

5, The dance hall on the first floor looking toward the stage. 6, The bar adjoining the dance hall.



5



6

## BOARD ROOM. GORDON RUSSELL



A board room panelled in cedar. The darker timber used for the table-top, etc., is Indian rosewood. On either side of the drinks fitment, 2, is a hat-and-coat cupboard. The curtains are blue, the upholstery cream hide, and the carpet a deep brown.



2

**CURRENT  
ARCHITECTURE**

These monthly articles are frankly about æsthetic aspects of architectural design. They are written in the belief that we can now take the practical basis of modern architecture for granted. They claim, that is to say, that we have got beyond the stage when we were so thankful for sheer reasonableness and efficiency that these were sufficient recommendation in themselves, and that there is room now, in criticism as in actual design, for study of the graces that all good architecture displays, whether in the precedents set by the past or the growing maturity of the present.

## CRITICISM

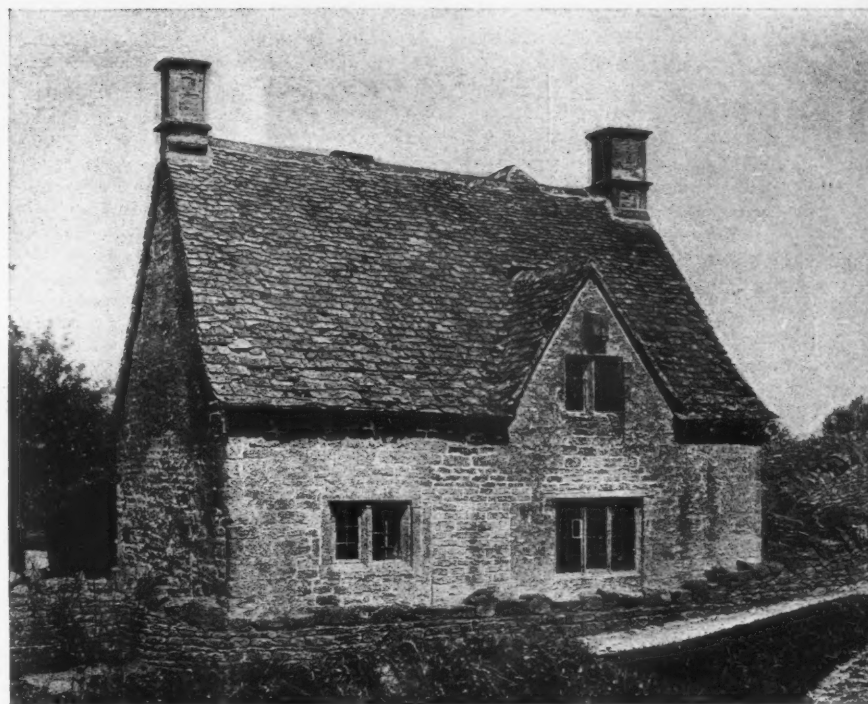
By James MacQuedy

IT is easy enough to criticize the kind of architecture that has become known as "modernistic." Its meretriciousness is obvious. It clearly makes the worst of all possible worlds. But it should be understood by those who are at pains to underline the difference between authentic modern architecture and that which only exploits its superficial characteristics in the manufacture of a synthetic style—and especially those who deplore the way the latter brings discredit on the former—that the existence of the modernistic is evidence of shortcomings in the modern. The rôle of the modernistic is a necessary one that even the best modern architecture—in its present rather unbalanced stage of development—has left unfilled. Unpleasing though its manifestations may be, it is a mistake to dismiss them as mere architectural trickery or facile opportunism. The connection of the modernistic with the authentic modern architecture is a less casual one than that of the burglar who is trying to break into the respectable house. It is more intimate: more like that of the skeleton in the family cupboard.

Their intimate relationship is clearly enough seen when we try to draw a hard-and-fast line between the two. We discover then how closely, for instance, some of the mannerisms that we like to regard as signs of the emergence of a consistent contemporary idiom out of the modern architects' efforts resemble the stunts we dislike in the modernistic. Of all styles of architecture the so-called "modern" most willingly lends itself to pastiche.

It will be said, of course, that in this stage of development the tricks of style with which individual modern architects choose to invest their buildings do not matter; that we should ignore them all and look for the essential distinction between modern and modernistic in the spirit in which the building is conceived, in articulation of plan and integrity of structure, instead of in the quality of its bits and pieces. But modernity of conception, as I have made a point of stressing throughout these articles, is not enough. Besides achieving a proper integration of technical means with social needs, a mature architecture should be capable of reacting, flexibly and expressively, to the various other demands the world it serves may make on it. These are not only demands for æsthetic satisfaction; they may equally well be inspired by romanticism and sentimentality or even by a simple attachment to what is comforting and familiar—and each is as legitimate a criterion as the other although the first presumably puts architecture on the highest plane as art.

In a previous article I discussed the place of association and symbolism in architecture—that is, the existence of other ways of looking at a building as valid as the conventional æsthetic one. I tried to show, in fact, that most people's judgment is based on any number of criteria more important than proportion, colour and the like. This month I want to try once more to look past the rather deceptive barrier of æsthetic taste by discussing two opposing architectural trends of a slightly different kind, which, I think, illuminate the nature of the modern-



*This Gloucestershire cottage happens to date from the end of the seventeenth century, but similar ones—very little different to look at—might have been built 150 years earlier or later. For this simple vernacular architecture, arising from the craftsman's use of local materials, was little affected by the events which continually revolutionized the sophisticated architecture that was more conscious of its style. The mediæval vernacular tradition, in fact, may be said to have persisted almost until the complete disintegration of the vernacular in the middle of the nineteenth century. This article discusses modern architecture's need to find its own vernacular expression and cites jazz-modern or modernistic as being, not an evil in itself, but a symptom of this need being unfulfilled. The modernistic is an attempt to provide an idiom in keeping with the other vulgarities of our own day, but fails because it has no roots in craftsmanship or building technique. Instead it apes the art forms of sophisticated architecture.*

istic and bear out the opinion I began with. If one had to try and label them one would call them the intellectual and the vulgar. To analyse their relationship one must go back—as one always seems to be compelled to do when trying to extract an intelligible pattern from our own confusion of motives and cultural reactions—to the changes that took place 150 years ago. It is a commonplace that the cultural significance of what is usually called the industrial revolution does not lie in the fact of its being a revolution but in the fact that the relatively stable state of affairs that preceded it was not followed by a restoration of stability afterwards. The whole of architecture, like the whole structure of society, has remained in the melting-pot ever since, and the result has been not only a lack of continuity, but also a lack of finality of purpose. No new order has crystallized out of the turmoil of change in the same way that a new Classical order crystallized out of the Jacobean confusion that followed the earlier revolution we call the Renaissance.

To restate this generalization in terms of these two opposite—or, more exactly, complementary—trends, the result of it is that whereas up to a century or so ago there had always been an intellectual and a vernacular culture flowering side by side—or at least since the advent of a commercial civilization brought mediæval unity of enterprise and ideals to an end—in the succeeding period the same approach has had to serve both purposes. After the

decay of the vernacular, the unsophisticated kinds of building which had previously found a vernacular expression had either to accept the academic paraphernalia with all the exclusiveness of taste and assumption of prior knowledge needed for their appreciation, or find their own way out of the ever more confusing wilderness of new needs, new techniques and new materials, without the aid of any code of behaviour such as it is the purpose of a consistent architectural idiom to supply.

And in the long run it is the consistency of purpose in the vernacular that matters. Any period can be relied on to produce its proper quota of talented and knowledgeable architects able to reflect the tastes of its educated minority, but that is quite a different thing from possessing an idiom that functions automatically as it were, and independently of the talents of the particular designer concerned. It is owing to the prevalence of the former state of affairs in the late nineteenth century that one resents its being labelled a "bad" period, but it is owing to the complete absence of an idiom of the latter kind that one has to admit that it was not at all a constructive one.

Rather over-simplifying the picture for purposes of generalization, one can say that the state of affairs in the eighteenth century and as far into the nineteenth as the social and economic revolution allowed eighteenth-century conditions to persist, was that only the self-conscious upper classes cultivated the art of archi-

*Form without function: a typical example of the modernistic. One of the buildings from the 1938 Glasgow Exhibition, which elsewhere showed a clear sense of the logic of basing a consistent idiom on such modern equivalents of the craftsmanship idea as standardized constructional units. But this building shows neither sense of material nor the formal imagination on which the more self-conscious modern architecture prides itself.*





itecture as a matter of knowledge and taste and adopted new styles as a matter of fashion, and that the less sophisticated classes—which were generally speaking, rural instead of urban—employed a vernacular equivalent of the architecture of the upper classes, but one which at the same time had enough in common with the preceding age when styles, instead of being imposed from above, grew out of the trials and errors of building technique, to allow full scope for vulgar genius. In a sense the vernacular architecture of even the Georgian period was more mediæval than Classical: its standardized Classical ornaments are less important than its vigorous reflection of craft traditions. The break that the Renaissance is supposed to mark is hardly discernible in, for example, the stone-built Cotswold cottage which maintains a continuity of style, based on the continuity of rural craftsmanship, for four hundred years. It was the survival of this mediæval tradition in architecture that the industrial revolution brought to an end, leaving the aristocratic tradition of cultivated styles to pursue its way relatively unchanged into the nineteenth century. The pedantry of Cockerell and Sir Gilbert Scott is not so very different from that of, say, Colen Campbell; and, to take the parallel one stage further,

the eclectic variations introduced by the Adam brothers into the stereotyped academic rectitude of their age was echoed nearly a century later by Norman Shaw's variations on the well-worn themes of the Gothic Revival. In short, the significance of the Georgian period to us is not that its characteristic code of architectural manners was so very different in spirit from that of the Greek or the Roman Classical, or any other Revival, but that it was only the show window, as it were (and the means of admitting new ideas) in a balanced architectural structure, one infused to some extent with the fashionable code of manners but with a vitality of its own, while these other styles pretended to contain the whole of architecture with their own purview. As the nineteenth century progressed, technical innovations made it less and less possible for sheer craftsmanship to maintain a continuity of vernacular culture, and its place was taken either by a practice of simply imitating the sophisticated manners—*vide* the Gothic and Italianate villas on the fringes of the expanding towns—encouraged, of course, by the snobbery of a growing middle class, or for the vulgar architecture to be purely negative, with the result that architecture came to be looked upon as exclusively con-

cerned with middle and upper class taste.

For architecture cannot afford to depend on conscious good taste being exercised at every point: its universal scope, indeed, prevents its characteristics being determined in such a way. And, lacking an unself-conscious vernacular idiom, it degenerated in the nineteenth century into one or other of those typical Victorian products, the negative meanness of the factory and the by-law street, or the snobbish presumption of the individualistic work of art imitated in little. A genuine vernacular only existed where some freakish conditions allowed pride of craftsmanship or spontaneity of conception to survive, as in the Gin Palace, the Nonconformist Chapel and occasional pieces of ornamental rusticity.

Such buildings are vulgar in the right sense. One of the tasks of today is to re-establish a new vulgarity which feeds in a similar way on its own, not a borrowed, vitality. One of the failings of modern architecture is that its new aesthetic is only the recondite aesthetic of the sophisticated few; it is allied with cubism and other artistic movements that demand as much in the way of an accustomed eye before they can be fully appreciated as Lord Burlington's Palladianism or Ruskin's Venetian Gothic. As such it is admirable, and has artistic possibilities that are not yet exhausted; but like them it is only part of the story, and has no stability without the solid vernacular practice that should be complementary to it.

To concentrate, as its protagonists are apt to, on the recondite and sophisticated charms of modern architecture is only to repress the need for vulgar freedom and naturalness. And as with all repressions the need finds its outlet elsewhere: notably in the sentimentality of the mock antique and in the modernistic,

which for all its faults is a genuine attempt to adjust architecture to the demands of the vulgar modern world, the world of the sports car and the arterial road. It is, however, too self-sufficient and without roots. It would do well to take a leaf from the history book and learn that the alternative to the cultivated art of the few is not a pale imitation of its mannerisms but the vulgar expression of the many in terms of craftsmanship. Put another way, vulgarity is only beastly when it substitutes pretentious and irrelevant standards for the craftsmanlike standards natural to its own spontaneity of conception.

I need hardly say that I am not recommending a return to handicrafts as the cure for this disability, but an exploitation of building technique instead of taste. Along with this goes a rediscovery of regionalism in the use of materials and in character generally.

Modern architecture, to sum up, at the stage it has reached at present is incapable of vulgarity without being bogus. It is therefore only in part an answer to the demands the world makes on it: the escape is either to the sentimentality of the Tudor villa or to the bogus stylistic impressiveness of the modernistic. It is no use telling suburban dwellers that they ought to like "modern" architecture instead of sham Tudor; for that is probably the nearest we have to a universal vulgar style. If we criticize this and the modernistic in terms of craftsmanship and the appropriate use of materials and forget about aesthetics for a bit, we shall at least be on the right road to helping modern architecture to build up, without losing any of its integrity, a parallel vernacular idiom that has the same relation to Le Corbusier as a Georgian farmhouse had to William Kent. I think we should find then that the discordant trivialities of the modernistic vanished automatically.



Drilling

COUNTRY CRAFTSMEN

# The Blacksmith

By Thomas Hennell

THE smith has, in a purely figurative sense, a great many irons in the fire. In literal fact, however, they are all out of the fire, and it would be safe to say that most of them have not visited it for many years. When I go to pass the time of day with him in his smithy, or have occasion to stroll up his large and straggling yard, I find an unutterable jungle of old metal, endless in diversity of form and purpose, hung up out of reach, piled up in corners, thrown down in the way. And flung out of the way outside he has much more

iron—half-dissected machines, unrecognizable castings, hulks unwieldy as wrecks on the Goodwin Sands, small fragments heaped together in such profusion as to choke the very weeds. One needs to go every day for a week at least, and watch the blacksmith work, to begin to find one's way about his collection. And then it grows clearer what is stock and what are tools; which pieces are hopeless wreckage (though the owner may still hope); which contain some likely parts of metal and which are missing some vital part.

To the casual observer the black, grey and rusty bars and scraps are iron and no more; but the smith's eye and hand find as great differences amongst them as a carpenter in his timber: green, sound or rotten; oak, elm and deal. The coming of motor-cars, though it has done for his trade, has improved the quality of the blacksmith's material. He picks up a cold bar, sets it in a vice, and strikes it into a right angle and then straightens it again on the anvil. The surface that was within the angle is frayed, but on the whole the bar has stood the test. "That's mild steel," says he; "twenty years ago it would have been iron, then it would snap." He is in no hurry to part with even the most unworkable-looking of his encumbrances. "Why should I sell for two or three pounds a ton what costs me twenty pounds to buy?" This reckoning, however, leaves out of account the labour of re-working and the waste by burning, which is considerable. And so the scrap accumulates.

The smith must needs have a large tolerant nature, not upset by interruptions, whether





*Newington Smithy*

grave or trivial. In the morning he may start on a long job; at any moment a horse may be brought in to be shod; then a woman brings in her scissors to be mended and sharpened; a farmer throws on the floor the pieces of some wretched mass-produced cultivator, with the remark: "He's nowhere nigh heavy enough for this here strong land—just you add another nine inches on each end, and brace him a bit so as he can carry a weight."

Of course, it never did occur to the farmer in the first place to ask the smith to make him a proper implement for his tough fields, and, of course, the smith does not suggest such a thing. He may retort, "One of a chain-stores' patents, I see," but there's no use in thinking to compete with the dealer's tout; so he accepts the case and calmly does his best.

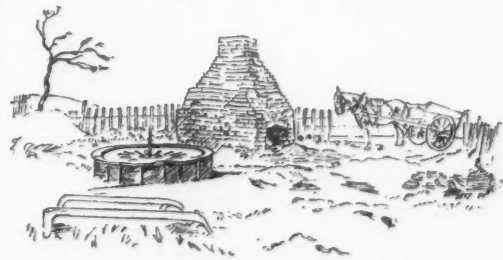
The smith is seldom consulted about either horse or implement, but generally expected to put right whatever has gone wrong, and so he is resourceful and inventive as well as tolerant. Many a job leaves the smithy with a better constitution than it had when new.

The forge is built of brick with a hood chimney; the fire is of slack coal, blown in the old-fashioned way with leathern bellows, or perhaps with an electric fan which is simply switched on, producing first a diapason note and then an increasingly shrill roaring, as the flame is blown to far greater and steadier intensity than is possible with hand-bellows. This shortens work, for the iron is hot in a few seconds, and it saves a man's labour in blowing. Then the iron is brought to the anvil and beaten, cut or pierced while glowing hot, and hardened by immersion in water.

The water trough stands at the foot of the furnace-bed; at each end of it appears the ends of many round iron rods, their lower parts immersed in the murky water. These are the handles of many pairs of tongs, of different sizes and shapes for as many purposes. The shoeing tongs that are in most constant use have a flat grip, and of these there are several sizes. But also there are tongs for holding bars firmly by the end, whether these bars are round, square or oblong in section, and for many other

special uses. Those tongs which are rarely used are out of water and hung in a row at the end of the trough. But the blacksmith knows by the handles what tool he picks, though they all look alike to a stranger. More than this, he knows by the feel when anyone else has been using them, for each smith has his own way of handling.

Besides hammers for several sorts of work, from the heavy sledge downwards, there are



*A strake-tyre chimney, a patent wheel-plate, and dogs for an open fire*

tools called swages to fit a slot on the anvil, and corresponding upper tools, for cutting, pressing or indenting, so that every possible form can be wrought if necessary out of a simple bar.

The country blacksmith buys wrought-iron bars of several grades—heavy, medium and light for carthorses, and again three grades for riding horses. These last are "concave" bars,



Making the "mould" of a new horse-shoe from an old one and a half

having a groove which makes them easier to pierce for nails: much lighter than the solid bars necessary for draught-work, yet strong enough. Nowadays he seldom thinks it worth the labour to make up old shoes again; but my sketch shows how this used to be done. A worn shoe was heated and sandwiched over a good half-shoe; then this was made very hot and welded together into a "mould" or blank shoe, from which the finished one was shaped.

Nobody wants to wait with a horse while the smith makes the shoe from bar-iron; that would be far too tedious, especially when several horses come at once. So on days when nothing urgent is on hand, he spends his time, with the help of a mate, making the shoes he is likeliest to want next. If you tell the smith the height and general build of your horse, he can have ready the shoes against your visit. The bar is heated, the proper length struck off; the bow hammered upon the "beak horn" of the anvil, the toe pointed and the heels beaten up on the flat of the anvil and over its edge. Then the bellows roar, the hammers ring on the anvil and presently the smith's voice is lifted in song. He has one or two old-fashioned ditties, others that are back numbers, but Hymns

Ancient and Modern or Gracie Fields come naturally and in turn. It may be simple taste, yet I think he has a fine musical sense, one that Handel would call harmonious. The ploughman, miller and shepherd all had their songs and have lost them; the smith keeps up his song last of all.

The hard shell of a horse's hoof is little more than a quarter-inch in thickness; this holds the shoe, and the nails must be accurately driven or the horse will be lamed. The nail-holes are made with a punch when the shoe is dull red-hot—in this state iron has a certain plasticity, and cuts more like homemade toffee than cold lead. Three nails upon the inside and four on the outside of each shoe; but the Army regulation horseshoe is symmetrical, having five nails outside and five inside, and it is put on cold. The file should be used sparingly if at all, and never above the nail-clinchings. The rasped hoof loses its natural oil and perishes—it cannot renew the shell which is rubbed off. The bad practice of wearing down the hoof to the shape of the shoe is called "dumping" the foot; but a good smith builds up his shoe to the form of the hoof. Before the days of motor traffic horses that were constantly on the roads were shod once a fortnight; cab-horses even once a week. The shoes were used and re-used, being toughened by the constant battering; but their hoofs could not make up the wear and tear by growth, and became split and broken, though rubbed with Stockholm tar and mutton-fat to preserve them.

But those laborious old days are gone, and many inventions have shortened and lightened the blacksmith's labour. The drill is in frequent use, and there are electric drills to replace the slow old ones geared to a handle. Those tall iron cones for making hoops upon are called mandrils. The iron tyre of a cart wheel is made three-quarters of an inch less in circumference than the wooden felloes; it is heated and expands, and can then be dropped over the wheel and shrunk on by quenching with water. The tyre is heated over an open fire, and the wheel placed on an iron wheel-plate to be fitted. In an old wheel the timbers shrink and the tyre gets loose again; then it has to be "cut and shut"; that is to say, a narrow piece is cut from it and it is re-welded. But with an "upsetting machine" the red-hot tyre can be pressed together and thickened so as to decrease its circumference, which saves a lot of work. I

have sketched the fire-dogs for heating the tyre, a patent wheel-plate which drops the whole wheel into water, and the old strake-tyre chimney, built long ago when sections called strakes were used to bind the felloes of the wheel, before single tyres came into general use. But this leads us to describe the craft of the blacksmith's closest neighbour, the wheelwright, and this must be postponed for the present.



**BRUNO TAUT'S** career reflects—indeed largely was—the history of German architecture from about 1908 to the time of his death in 1939. In 1907 the *Deutscher Werkbund* was founded as a centre of all that was most progressive in architecture and design, its ideal being the creation of a genuine style of the twentieth century. Peter Behrens' factories for the A.E.G. date from then and Gropius's earliest masterpieces followed immediately. But Taut, born in 1880, and thus three years older than Gropius, was by 1913 just as widely aware of the new age. His *Temple of Steel* at the Leipzig Building Exhibition of 1913, and his *Temple of Glass* at the Werkbund Exhibition in Cologne in 1914, were the most dramatic professions of faith in new materials put up until then. In the earlier of the two there is, at least formally, still a certain connection with the English style of 1900 (e.g., Brewer's Pavilion for Heal's at the Paris Exhibition) and with Behrens's early style. The later one, with its lozenge-shaped panels of glass and the extensive use of glass bricks (in 1914!), is entirely Taut in character and form. For Taut, when young, belonged more to the growing cult of Expressionism in German painting and sculpture than to the "Sachlichkeit" of Gropius. When, after the revolution of 1918, Expressionism became foremost in Germany (so that even Gropius for a very short time got absorbed in it), Taut came out with some books on the duties of the architect in society. When functionalism came into its own—at the time of the famous *Weissenhof-Siedlung*—Taut de-

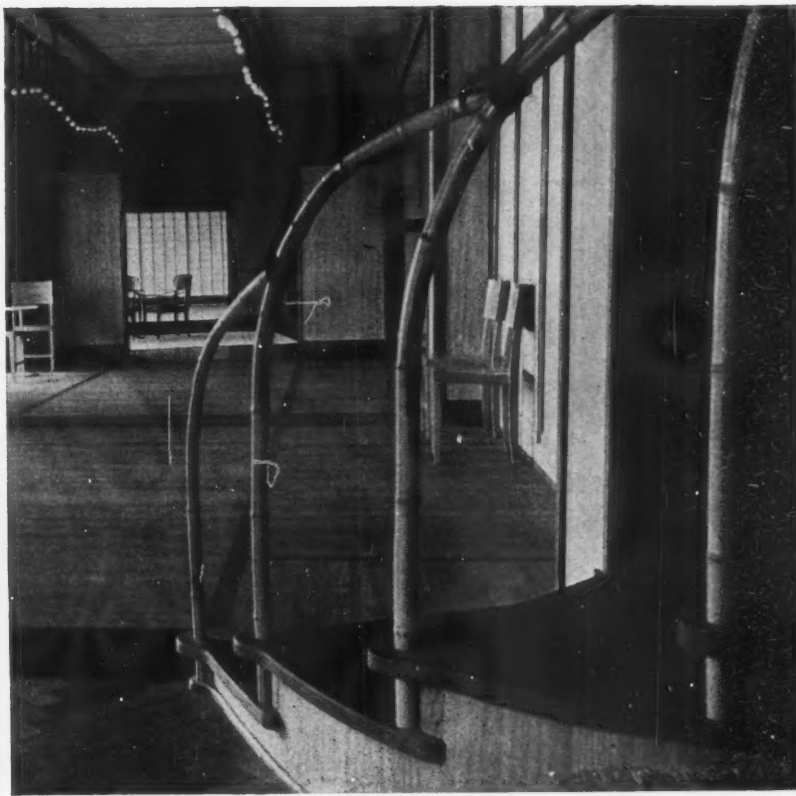
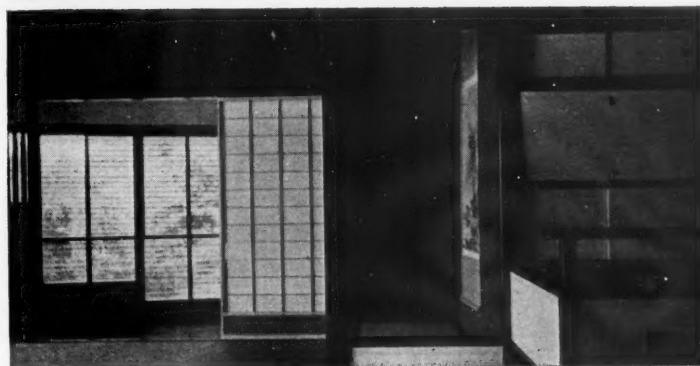




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signed some of the most brilliant estates: Britz with its often-illustrated huge semicircle, and Zehlendorf with its ensemble of pine trees and white houses. This phase lasted until Hitler got into power. Then the next phase began, the Diaspora. The hatred of the National Socialists for any truly contemporary architecture prevented most of the modern architects from going on in Germany. They left, and thus initiated a world-wide diffusion of their style. Taut was first attracted by Russia, but very soon went on to Japan, where he discovered—as Frank Lloyd Wright had done a long time before—the fundamental affinity between contemporary European ideas and the traditional Japanese idiom. Before going on to become head of the Department of Architecture at the Turkish National Polytechnic School at Istanbul (where he died), he built the two houses illustrated here.

N. PEVSNER



## BRUNO TAUT'S JAPANESE MODERN

THE traditional Japanese house is no longer suitable for the modern Japanese. People who sit on chairs, and no longer squat around the Kotatsu under a multiple thickness of kimonos, are bound to suffer in houses where the cold wind drives through the flapping Shoji and Amados.

Strictly speaking, Japan has to reckon with only one "Nyubai," a period of humid heat from the middle of June to July; but, in fact, the first half of September is even worse; indeed, the ex-

perience of Europeans is that Japan has to provide against humid heat for four months, and against cold with frequent extreme dryness for another four months.

Believing that "Europeanizing" Japanese architects whose ideal is the suburban villa of any Western town, were going completely off the rails, Bruno Taut, during his time in Japan, made a great effort to bring them back to reason and tradition by lining up the traditional technique with the modern movement,

and the houses illustrated here are historically interesting as a tentative experiment in *Japanese modern*. Unfortunately, only a partial one. The Okura House was already under construction when its architect—Dr. Ing. Gunkuro Kume—by agreement with the builder, asked Taut to test his theories on it. All the same, as the photograph (the only exterior; all the interiors belong to the other house) shows, Taut was not unsuccessful in creating the appearance, at any rate, of a modern building with definite Japanese character.

The other house, belonging to Mr. Hiuga, a retired merchant, is situated on the wonderful Pacific Coast—the Japanese Riviera—where the cliffs fall steeply down

to the sea. The steepness of the cliff allowed no place for a garden outside the house, so the builder had the idea of designing a hanging garden on a ferro-concrete platform. As a result an extensive hall became available, consisting merely of piers and a few walls of raw concrete. Again, it was Taut's idea to design these in a modern equivalent of the traditional Japanese style. From the hall of the existing house, which stood on the higher ground, he planned a wooden staircase to the new room under the garden. On this staircase (above) the handrail is made of natural bent bamboo, bound with dark brown cocoa fibre; the first time that use has been made of bamboo in this way.

Great care was necessary not to outrage traditional Japanese architectural etiquette. Despite the strictness of their formulas, the ancient Japanese Masters valued originality and despised imitateness. Nothing is more foreign to their spirit than an attempt at Ye Olde, and in the distribution of the matting, the arrangement of the coverings and mouldings, the architect finds plenty of freedom in spite of all that Japanese standard measurements can do.

The work was not given to a large firm, but to a Mr. Sasaki. He carried out his work with such accuracy and delicacy that it took a year to build what should have taken just about two months.



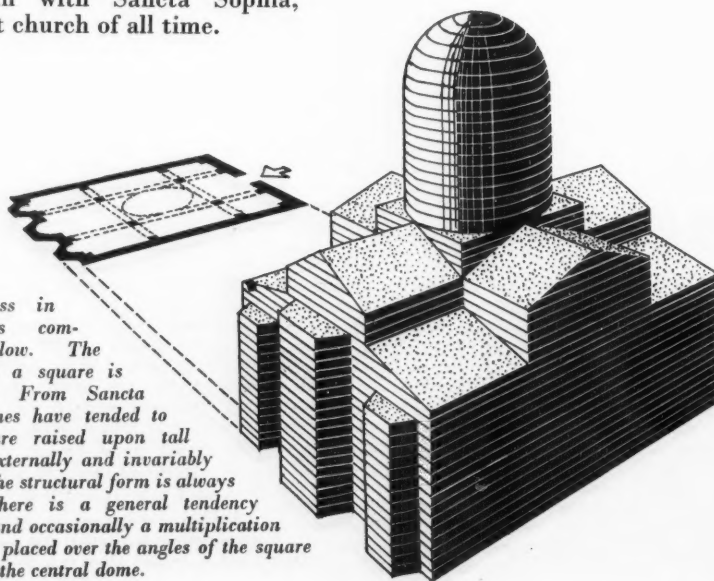


The Monastery of Dochiariou (left) is of eleventh-century foundation, and contains the largest church on the Holy Mount Athos, a peninsula on the extreme north-east of Greece. This peninsula, inhabited by six thousand monks, preserves more than anywhere else the legacy of Byzantium and the mode of life originated by its Byzantine founders. The church of Dochiariou possesses five domes, covered with lead in radiating pattern, and raised on tall whitewashed drums. It almost fills the courtyard, so that it is nearly possible to touch the roofs from the balconies of the monastery at the eastern end.

The churches on the rugged peninsulas to the extreme south of Greece have a grim and geometrical aspect. Heavily formed in dark grey stone, the only relieving feature of the church at Monamvasia (opposite) is the entrance doorway, where the early influence of Renaissance first makes itself apparent. Towards the end of the Byzantine Empire the influence of Venice was already being felt along the Dalmatian coast and down to the islands of Greece and the Western Aegean. Monamvasia was perhaps the last stronghold of Greece to fall before the Venetian arms.

## The Byzantine Legacy in Greece

Greece is a country where the beauty and dignity of ancient things linger long. There, alone, is preserved to some considerable extent the heritage of Imperial Byzantine dominion. That this is so little known is the fault of tourists and travel agencies, who, overcome with the abundance of classic remains and broken pottery, are apt to forget the existence of a legacy of more recent times. After all, it was from Greece that a considerable measure of the inspiration of Byzantine art was derived, and so, as might be expected, it is in Greece that the art prevails. Throughout the land innumerable Byzantine churches, of great interest and of particular charm, are maintained. Situated on lonely hillsides, and dramatically perched on almost insurmountable cliffs, they come to us today hallowed by the tradition of centuries, the last words of an epoch which began with Sancta Sophia, perhaps the greatest church of all time.

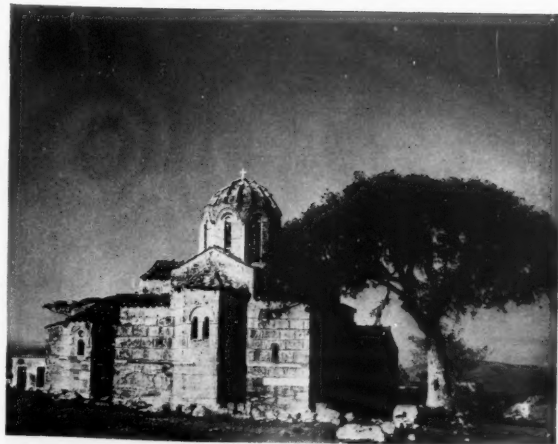
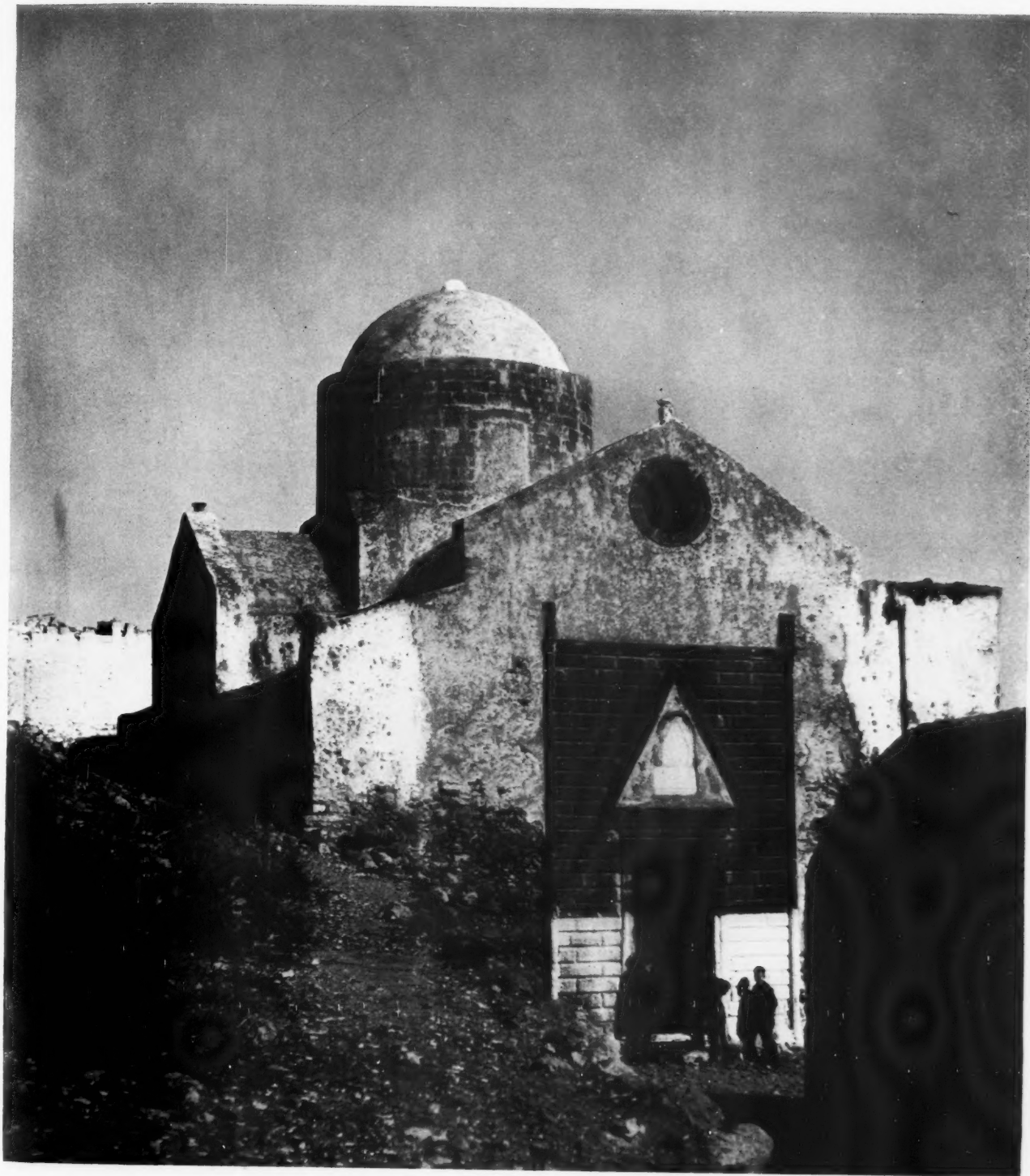


The evolutionary process in architectural design is comparatively easy to follow. The plan of a cross within a square is seldom departed from. From Sancta Sophia onwards the domes have tended to decrease in size and are raised upon tall drums, often polygonal externally and invariably circular on the inside. The structural form is always clearly apparent, and there is a general tendency towards increased height and occasionally a multiplication of domes, these last being placed over the angles of the square and always subservient to the central dome.

Following the same structural plan, the Church of Omorphi Ecclesia (opposite page, bottom left) is situated on the barren plain beyond Patina in Attica. The dome in this case is carried on two free-standing piers on the west side, and on two walls which divide the apsidal end on the east. While the use of brick and tile as shown here was primarily constructional, for it made a good joint between uneven masonry, it was extensively used as a means of enriching the exterior. Separating each stone vertically and horizontally from its neighbours, these vivid red lines of tile or brick, set in thick bands of mortar, enhance the external effect.

With the fall of Constantinople, the seat of the Byzantine Empire was re-established for a brief period at Mistra in the Morea, some four miles from Sparta, and here there remain many churches of great interest, such as the Metropolitan Church (bottom centre) where, though the city is now deserted, an annual service is still held. It was here that the last of the Byzantine Emperors, Constantine XI, was crowned, and on the floor of the church a stone, carved with the Imperial Eagles, marks the spot.

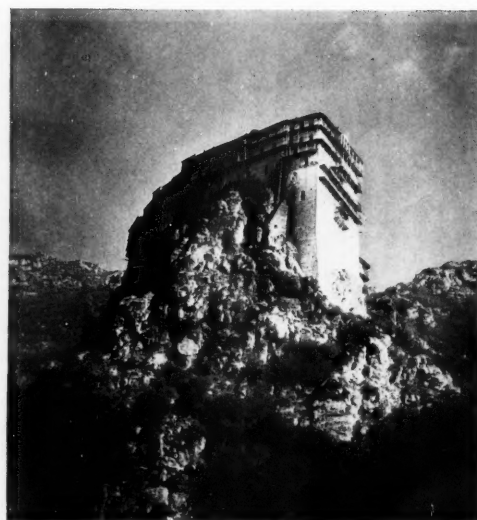
Near Athens, on the slopes of Mount Hymettos, the Church of Kaisariani (bottom right) is built on the site of an ancient temple. The conversion of pagan sites to Christianity was usual. Even the Parthenon was transformed into a church, and Christian frescoes are still visible on the cella walls. They were introduced by the Byzantine Emperor, Basil II, commonly known as The Bulgar Slayer, who thought it a pity that so magnificent a temple should have so bare an interior. In the Church of Kaisariani, pentelic marble slabs, enriched with antique devices, were used, and these golden walls, laced with red brick and surmounted with brown tiles on roofs and cupolas, present a picture of ineffable charm.







THE BYZANTINE LEGACY  
IN GREECE



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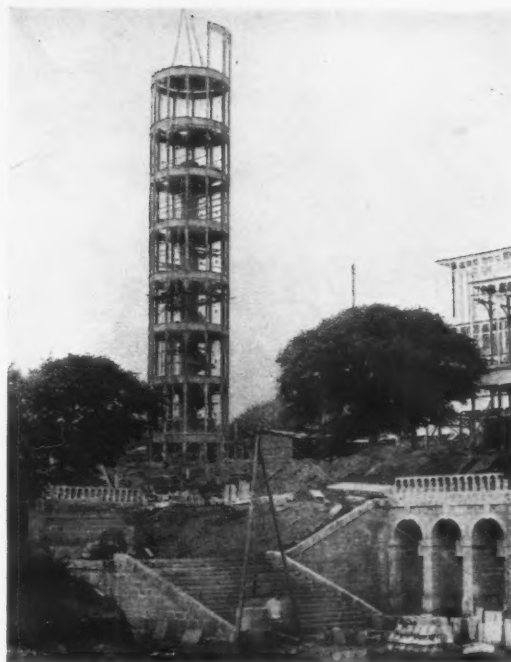
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## I RISE, 1854

In photograph 1, taken in 1854, can be seen one of the two towers of the Crystal Palace under construction. Photograph 2, taken in April last—87 years later—shows the blowing-up of the north tower, which was the sole remaining reminder of South London's most familiar landmark. It would have been fitting, since the Crystal Palace was built through the efforts of a German (the Prince Consort), if the last bit had been finally knocked down by a member of the same race, but, in fact, it was demolished for scrap by the British. The paradox of the building still remains. Its life—1851-1941—covers almost exactly the beginning and the end of the epoch that started with the Great Exhibition, yet the building itself still represents the new age which remains to-day, as in 1851, only just round the corner.

The two towers were designed by the younger Brunel. They were 280 feet high, and they served as water tanks, providing the head of water required for the fountains in the Palace gardens. They concealed the flues from the heating plant as well.



## 2 FALL, 1941



The Church of Kapnikarea, standing in the middle of modern Hermes Street, follows the cross in square type. While small outside, it is minute inside, accommodating as it does only twenty people. Churches like this were designed not so much for congregational use as for occasional private worship. Inside, cut off from the noise of Athens, is peace and quiet. The dome, carried on four columns which mark the central square, is scarcely six feet in diameter; perfect in proportion, encrusted with gold mosaic, it shines from above in a lustrous unearthly glow.

The little whitewashed Church of Agios Sotiros (opposite page, top left), is of eleventh-century Byzantine architecture. With its beautiful simplicity, this church possesses all the features of its period. The frescoed interior still remains in perfect condition, though the craftsmanship is not so fine as at Kaisariani. The dome, circular inside, is carried on four debased Ionic columns. This church is little known, perhaps because it has no historical or archeological interest. It is just another Byzantine church, truly delightful and of infinite charm.

The church at Alivi (top right), and the Church of Aya Saranda are but variations of the same theme. The expression of an epoch is as easily apparent in the small and simple things as it is in the great and magnificent. The absence of windows of any size is peculiar to the period and enhances the mystic quality which pervades the interiors of the churches. The light outside is, of course, very brilliant, and the disposition of the windows, which are the merest slits, being limited to the dome and high in the vaults, gives the frescoed walls, with their considerable areas of reflecting golden background, an ethereal but dramatic charm.

The most spectacular of the monasteries on Athos is that of Simopetra (opposite page, bottom), which was rebuilt by the monks after a disastrous fire only fifty years ago. This is the latest—perhaps the last—development of Byzantine architecture in Europe. Here on Athos the tradition of centuries has remained unbroken. Whether the present annexation of the peninsula by the Germans will bring its historical significance to a close remains to be seen. The culture of Athos prevailed over the domination of the infidels for centuries after the fall of Constantinople, and perhaps this is a good reason to believe that it will still endure.

CECIL STEWART



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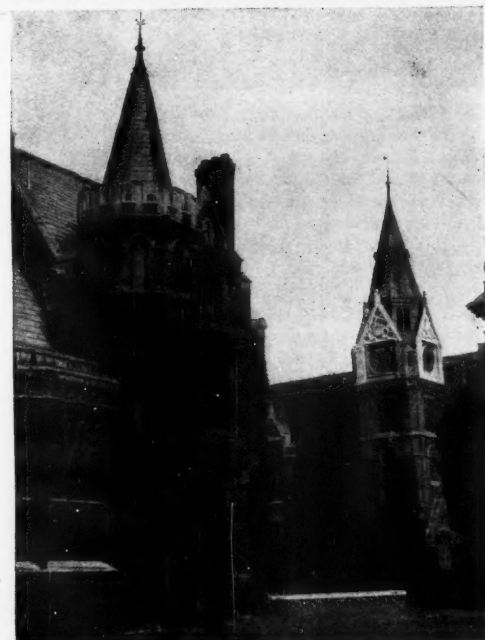


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## B O O K S



5

1. Girton. 2. Newnham. 3. The new buildings at St. John's. 4. The Screen, from the front lawn at King's. 5. Buildings designed by Paul Waterhouse at Pembroke. 6. Trinity Street and King's Parade about 1860. 7. Trinity Street and King's Parade today.—From "Cambridge," by John Steegmann.

### An Architectural Museum

CAMBRIDGE. By John Steegmann. London: B. T. Batsford, Ltd. Price 10s. 6d. net.

CAMBRIDGE is such an architectural museum (not to say hotch-potch) that a new appraisal of it from a critic of the discrimination of Mr. Steegmann is bound to be educative.

Architecture is the main concern of the book, though it has some chapters of history, very crisp and readable, but not always reliable, and showing a tendency to let wit run away with judgment. The consistent mis-spelling of St. Catharine's is another less important but no less irritating flaw, and the map of modern Cambridge might just as well have been up-to-date. There is a description of undergraduates' life today, rather crude in its

As a cultural centre (as distinct from a centre of learning) Cambridge today stands very low, a thing which is clearly exposed in the architectural discussions carried on between the members of the University. Were the fruit of these endless arguments to ripen into a contribution to architectural theory Cambridge might be said to be exercising the cultural influence of a European University, but with one notable exception, no new or even interesting architectural idea has ever come out of modern Cambridge. It is the distinction of Mr. Steegmann that he discusses Cambridge architecture of all periods including the present with the equipment of a person of taste, and though he is by no means as outspoken as he might be, his views may be taken as sound. His book is the first in which the recent architecture of Cambridge has been accurately assessed, nor does he forget to do justice to Wilkins and to Waterhouse, and even to Girton and Newnham. Of these it can be said at least, that they have an exuberance the post-war genteelisms of Cambridge most notably lack.



generalizations of college characteristics and unjust in its assessment of the work they get through; and some balanced speculations about the future. But the copious pictures would give the book an architectural preponderance, even if that part of Mr. Steegmann's text were not the most valuable.

He starts by pointing out that, though old Cambridge buildings are too individually conceived to be viewed in relation to their neighbours, as one may view Edinburgh or Bath, yet it is possible to find among them very complete patterns of each period. Secondly, he decries the pedantic habit of automatically setting a high value on all buildings that are old and a low one on all the modern imitations of historic styles. He pays well-deserved tributes to James Burrough and James Essex, responsible for so much of the good, masculine, eighteenth-century buildings which are the University's backbone. (The vandals had their eye on one of Essex's lately but Fate cheated them.) Not everyone will agree with all his appraisements of nineteenth- and twentieth-century work, for though neo-Gothicism is in better odour than it was a few years back, red-brick scholasticism is in worse. In assessing the new buildings of Clare and Caius he misses their chief virtues, the courts within, both very fine indeed, and he does the latter an injustice in classing as concrete its façade of Portland stone, chosen deliberately with an eye on the future and the possible extension of the building to Trinity Street which would bring it up against the similar fabric of the Senate House and King's.

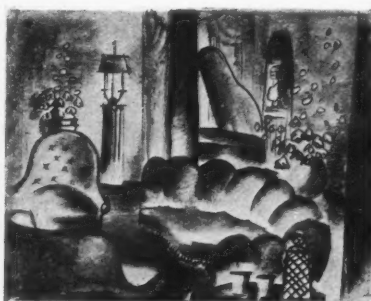
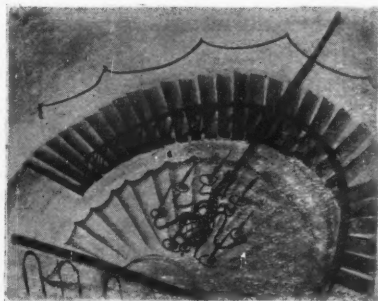
Detailed argument, in any case, is out of place here. Everyone with an interest in architecture and a concern for Cambridge must welcome such an independent criticism as Mr. Steegmann provides. There is no end of discussion in the University and town about the merits of the galaxy of buildings put up between 1919 and 1939; and out of it all one thing only emerges, a phenomenal variety of opinions. The undecided taste of those years was nowhere so pronounced as in an academic town, where the sturdiest conservatism battled with fanatical vanguardism, each exasperating the other. If only there had been some powerful, enlightened personality or group who could have reconciled the two camps with a policy of intelligent scholarship, how much could have been done! The lack of plan and community sense is most pointed in the Market Square. The old square was no great shakes, but it had character and a consistent charm. Now on one side we have a horizontally inclined range in white stone. Facing it is a Goliath in yellow brick, vertical in trend, wholly out of scale with everything between it and St. John's Chapel. The third side is a jumble of brick and stone. And the total effect is chaos. A stone's throw away, in Sidney Street, twentieth-century Gothic, twentieth-century Tudor and twentieth-century Georgian do their utmost to put each other out of face. (For twentieth-century Queen Anne it is necessary to go down King's Parade to St. Catharine's.) As Mr. Steegmann points out, the men who built old Cambridge were working each in the accepted idiom of his age; we, in twenty years, have produced more styles than they did in four hundred. We shall get no bouquets from posterity for that.

E. A. CRUTCHLEY

Three sketches for "While Parents Sleep" (British and Dominion Film Corporation, 1935), by L. P. Williams, A.R.I.B.A., one of England's most able young art directors.

"Most of Williams's best designs are just shorthand notes for the sets that he intends to build. When in England he proved to be a very energetic artist, paying great attention to detail. Like Cavalcanti, Lang and Andrijew, Williams started as an architect."—From "Designing for Moving Pictures," by Edward Carrick.

Lawrence P. Williams studied architecture at the Architectural Association and



left there in 1927 to join Herbert Wilcox, for most of whose pictures he prepared designs, these films including "Nell Gwynne,"

"Bitter Sweet," "Victoria the Great," "Sixty Glorious Years," and many others. After producing "Yank at Oxford" for

M.G.M., Williams went to America to produce more films for Herbert Wilcox, and he is now working in Hollywood.



Trinity Street and King's Parade in 1860, and today: a comparison which deserves the study of anyone who still has an affection for Cambridge. One of the irretrievable disasters to our University towns lies in the destruction of the eighteenth-century vernacular which formed the background—the ideal background—to the college buildings. No amount of ill-digested Modern Georgian can redress the balance now. This crime against English civilization carried out in the very heart of a so-called cultural centre has been actively encouraged by ignorant dons and college authorities.



## The Art of Making Films

DESIGNING FOR MOVING PICTURES. By Edward Carrick. London: Studio Ltd. Price 8s. 6d. net.

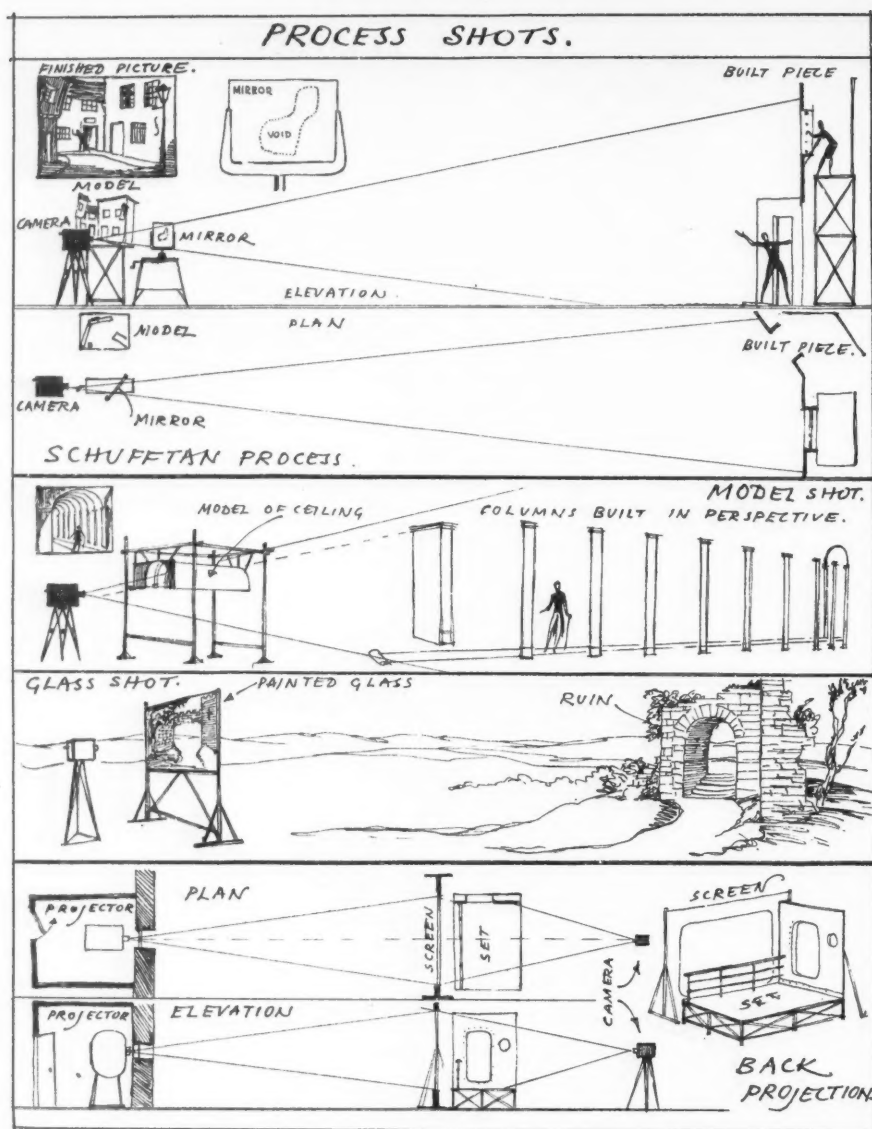
ONCE wrote a book, the title of which was *Film and Theatre Décor*, and I believe that Edward Carrick wrote a review of this expensive production. What he wrote I never knew, but this moment seems appropriate for telling the truth about this book of mine. I knew little about either film or theatre décor, but, as an architect, my enthusiasm unquestionably was impelled towards this temporary channel of design. It seemed to me that a scope existed for purely æsthetic expression in both films and theatre in a way denied to any form of legitimate building, whether it be

a block of flats in the city or a sanatorium in the country. It seemed to me at that time that there was no limit to the extravagant—æsthetically that is—possibilities of artistic expression in the film studios or the theatre, and I still think that such is the case.

And so I wrote a book which was superficial and conveyed only my enthusiasm, avoiding technical knowledge that can only be acquired through practice.

And now Edward Carrick, my friend and one-time colleague, has written a book on film design which is both cheaper and more full of information than my own. It is a mine of information, as is a book by Peter Bax called *Stage Management*, and, since among all designers there is this desire to





**TRICK SHOT.**—"The photographs illustrate the building-up of what is known as the Model Shot. The scene is from the film 'Monte Cristo,' and the drawing shows the columns of the colonnade built up in the correct perspective for photographing simultaneously with the ceiling, a model of which can be seen, placed at an appropriate height and



nearer to the camera. The result is shown in the photographs, the right hand one of which was taken when the scene was 'all set' for filming, and the other from another place showing the actual positions of the vault and columns. The Model Shot in the drawing shows how the thing is done." —From "Designing for Moving Pictures."

relax into the exciting, it is a book which they would like to read. It is not a book which will make a designer want to go into films, it is more a book that a designer having gone into films ought to have on his drawing table. It is chiefly a very good filmic encyclopædia in which the author has generously given up his secrets for every other designer to make use of.

Edward Carrick is a short man, a vital man, a

man full of curiosity, and he is a son of Gordon Craig, that outstanding figure in the world of the theatre. An unpopular but an outstanding figure. Carrick was brought up by Craig without the often useless background of a school education. Now Gordon Craig has a remarkable sense of the Ideal. He carries a pure flame which none can extinguish, and he is a fine writer. His son, Edward, was reared in this atmosphere of erudition and idealism,

but he is not by nature a scholar, nor is he by nature an idealist. It is as if his father had produced in him a reaction, and he is the opposite—the complement so to speak—of his sire. Carrick unearths knowledge, and that is part of Craig's training. He conveys knowledge, and that, too, is part of his upbringing; but there he confines himself, just as if he was saying: "Where my father has been accused of impracticability I will make up for it, I will be more practical than the carpenter, than the plaster-worker," and by God he is! The workmen are his friends, and this book is worthy of any craftsman. It tells you how to present cloud effects, what wood to use for what function, how to price sets, how to build sets that are to be subjected to earthquakes and storms, what is the best kind of snow, how to build acoustically well, the way in which materials can be saved, a method of sequence for craftsmen so that they do not spoil each other's work, a classification for the materials used in film building, how best to paint the sets, and the failings of the average director. In fact, the thousand-and-one details that go into the technique of a new medium. And they are all written down in such detail as to give the impression to the ambitious amateur that if only he were given a film to do he could (with the aid of Carrick's book) accomplish it without previous knowledge. It is, I repeat, a very good book.

One significant thing emerges from my perusal of this book which is not made manifest in the text and may escape the notice of designers who have not worked in the film studio. Carrick was brought up not as an architect but as a painter-designer, and the approach of the architect and the painter towards films is entirely different. The painter always sees his designs as a painting, and that may seem an obvious remark, but it is none the less so subtle as to escape the average architect who approaches the same sort of work as a piece of architecture. The painter composes the picture as the camera will see it and the architect designs a building which can be photographed; and in this difference lies the whole ultimate ambition of the two different kinds of designers. In some ways the painter is like Woman. He strives after the emotional, and if he is a good painter has no fear of diving head-first into the deepest emotions of mankind—and liking it. The architect is like Man; he wants the truth of the thing (if he is a good architect), and his emotions are made subservient to this ideal of superior logic.

I would even go further and say that whereas a painter will stop at designing in films, an architect will never be satisfied until he is a Director of films, and in this sweeping assertion you must assume that the difference between the two is the difference (to extend my analogy) of Man and Woman, where the wholly male never exists and the wholly female is likewise a myth.

Alfred Hitchcock, Fritz Lang, Cavalcanti and Cameron Menzies all began as Art Directors and, believe me, it is the only job in films that is worthwhile aiming to do. A cameraman has his work cut to pieces, an Art Director has his work badly photographed, a Sound Director has his acoustics made difficult by the Sets; they all in turn have to hand over their creation to the Director so that he can fuse the whole. He is the Conductor, he is the Architect, he is the Film.

There have been architects in films like L. P. Williams, David Rawnsley, Fred Pusey, Frank Bennett and a man called Steggman, and it is a wonderful field for design, but it needs a coherent unit such as Rene Clair had for a short time when he made "Sous les Toits des Paris" and "Les Millions", such as Fritz Lang had when he made "Metropolis" and such as the Russians had when Eisenstein had his school. But these are rare units. The medium has been fouled by cheap go-getters. It is essentially a world of greedy ambition—unscrupulous, phoney, disorganized, in-artistic, cheap. There used even to be a little line, "Alibi Baby on Elstree Tops," and that crystallizes what the film people themselves call The Racket. But for those who like rackets or would care to face the challenge which films throw out, here is the book.

RAYMOND MYERSCOUGH-WALKER

# The Eighteenth Century looks at York

I have not found all the benefit I expected at Scarborough, where I have been these eight days—From Harrogate we came hither by the way of York, where we stayed only one day to visit the Castle, the Minster, and the Assembly-room. The first, which was heretofore a fortress, is now converted to a prison, and is the best, in all respects, I ever saw, at home or abroad—It stands in a high situation, extremely well ventilated; and has a spacious area within the walls, for the health and convenience of all the prisoners, except those whom it is necessary to secure in close confinement—Even these last have all the comforts that the nature of their situation can admit. Here the assizes are held, in a range of buildings erected for that purpose.

As for the Minster, I know not how to distinguish it, except by its great size and the height of its spire, from those other antient churches in different parts of the kingdom, which used to be called monuments of Gothic architecture; but it is now agreed, that this stile is Saracen rather than Gothic; and, I suppose, it was first imported into England from Spain, great part of which was under the dominion of the Moors. Those British architects who adopted this stile, don't seem to have considered the propriety of their adoption. The climate of the country, possessed by the Moors or Saracens, both in Africa and Spain, was so exceedingly hot and dry, that those who built places of worship for the multitude, employed their talents in contriving edifices that should be cool; and, for this purpose, nothing could be better adopted than those buildings; vast, narrow, dark, and lofty, impervious to the sun-beams, and having little communication with the scorched external atmosphere; but ever affording a refreshing coolness, like subterranean cellars in the heats of summer, or natural caverns in the bowels of huge mountains. But nothing could be more preposterous, than to imitate such a mode of architecture in a country like England, where the climate is cold, and the air eternally loaded with vapours; and where, of consequence, the builder's intention should be to keep the people dry and warm—For my part, I never entered the Abbey church at Bath but once, and the moment I stepped over the threshold, I found myself chilled to the very marrow of my bones—When we consider, that in our churches, in general, we breathe a gross stagnated air, surcharged with damps from vaults, tombs, and charnel-houses, may we not term them so many magazines of rheums, created for the benefit of the medical faculty? and safely aver, that more bodies are lost, than souls saved, by going to church, in the winter especially, which may be said to engross eight months in the year. I should be glad to know, what offence it would give to tender consciences, if the house of God was made more comfortable, or less dangerous to the health of valetudinarians; and whether it would not be an encouragement to piety, as well as the salvation of many lives, if the place of worship was well floored, wainscotted, warmed, and ventilated, and its area kept sacred from the pollution of the dead. The practice of burying in churches was the effect of ignorant superstition, influenced by knavish priests, who pretended that the devil could have no power over the defunct if he was interred in holy ground; and this, indeed, is the only reason that can be given for consecrating all cemeteries, even at this day.

The external appearance of an old cathedral cannot be but displeasing to the eye of every man, who has any idea of propriety and proportion, even though he may be ignorant of architecture as a science; and the long slender spire puts one in mind of a criminal impaled, with a sharp stake rising up through his shoulder—These towers, or steeples, were likewise borrowed from the Mahometans; who, having no bells, used such minarets for the purpose of calling the people to prayers—They may be of further use, however, for making observations and signals; but I would vote for their being distinct from the body of the church, because they serve only to make the pile more barbarous, or Saracencial.

There is nothing of this Arabic architecture in the Assembly Room, which seems to me to have been built upon a design of Palladio, and might be converted into an elegant place of worship; but it is indifferently contrived for that sort of idolatry, which is performed in it at present: the grandeur of the fane gives a diminutive effect to the little painted divinities that are adorned in it, and the company, on a ball-night, must look like an assembly of fantastic fairies, revelling by moon-light among the columns of a Grecian temple.

TOBIAS SMOLLETT

(*The Expedition of Humphry Clinker*, 1771)

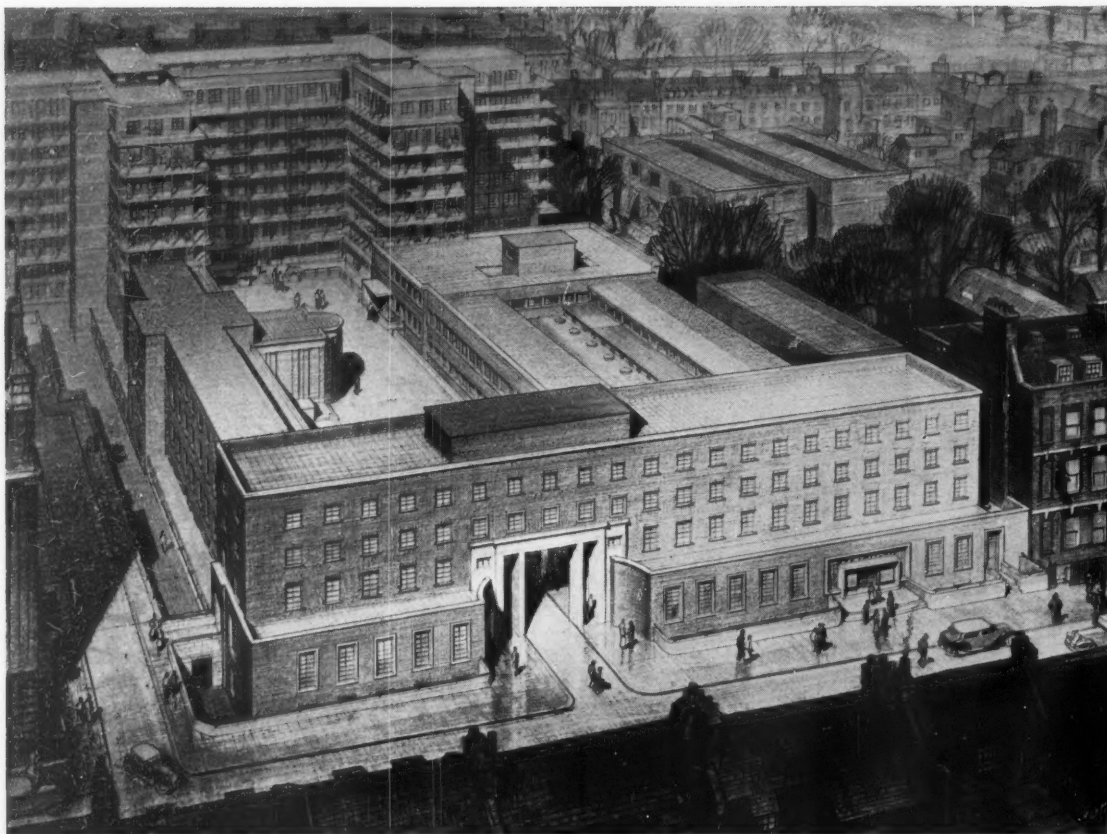
## Living in Cities

'London had a few days' glimpse at the beginning of last month of a quite inspiring photographic exhibition under the above title, which is now touring the provinces. It is one of the enterprises circulated throughout the country by the Council for the Encouragement of Music and the Arts, who have hitherto confined themselves to sending round collections of paintings, but who can obviously do a world of good by enlarging their scope to cover subjects like this. Their touring exhibitions reach just the public on whom we have to rely for that firm body of informed public opinion that is so badly needed in both the fine and useful arts. Nearly all other exhibitions are only equipped to preach to the already converted.

The particular art this exhibition concerns itself with is, roughly speaking, the art of utilizing material resources to improve the standards of our surroundings. It consists of a neatly and attractively arranged collection of photographs, interspersed with prints, drawings and the like, and linked together with expository titles. The first section surveys the growth of cities historically, illustrating the feudal, mercantile and aristocratic types, and concluding with the chaos of the modern city which lacks any controlling purpose to bring order to its ever increasing multiplicity of parts. The next section illustrates past attempts to impose an orderly pattern on cities instead of relying on organic structure: Wren's plan for London, Haussman's work at Paris, and Nash's Metropolitan Improvements. It also illustrates, by striking photographs of Rheims in the last war and today, and of Tokyo, devastated by earthquake and after rebuilding, that intelligent reconstruction is not synonymous with mere replacement. Other sections are designed to suggest the scientific resources that are available to the city planner of the future and the human needs he must not omit to cater for, with special emphasis on the spaciousness and leisure that modern technology ought to bring to the art of living.

Some general suggestions are made as to how these ideals might be implemented after the war (for example, the adaptation of the highly organized armament industry for the mass-production of building parts), but this part of the exhibition is necessarily inconclusive since the organisers have deliberately avoided raising the economic or political issues on which the whole of post-war reconstruction must depend: control of land utilization, the existence of a central planning authority, and so on. For the reasons set out in the leading article of this issue, any talk of post-war planning loses much of its usefulness if it does not begin with the circumstances in which the planning will have to be done. In that sense the "Living in Cities" exhibition is purely Utopian, but it should serve the useful purpose of making it clear that the city is a man-made object, not an act of God, and that scientific resources do exist to make the modern city better than cities have ever been before.





Top. New Hospital for Sick Children, Great Ormond Street, London. Architects: Stanley Hall and Easton and Robertson. Centre. Shrewsbury Senior Mixed School, East Court. Architect: Julian Leathart. Bottom. Southwark New Police Station. Architect: G. Mackenzie Trench. From the Royal Academy Exhibition, 1941.

If it makes this clear it will be something, for there is still an idea about that the modern city is bound to be horrible, and is only a thing to be escaped from.

The actual organizers of the exhibition are the 1940 Council, and the designer was Ralph Tubbs. The preview was held at the R.I.B.A., but it is planned exclusively for touring the provinces. Four copies have been made. The one shown in London went next to Impington Village College, and is now touring the North; another copy will be seen shortly at Leytonstone Public Library, and subsequently in other outer London boroughs. The other two copies will travel simultaneously round other regions of the country, one being shown particularly at centres where men in the Services can see it. Penguin Books are also planning to reproduce the exhibition in miniature.

### The Royal Academy 1941

This is not the first time that the most interesting architectural exhibits at the Academy have been outside the Architecture Room. Not that they are very remarkable this year, but at least some of the paintings do show a direct response to the visual qualities of buildings. They are descriptions of architecture in the language of paint, but the so-called architectural drawings, as usual, are not direct descriptions at all, but exercises in that depressing minor art called "perspective rendering," the tricks of which have no connection with architecture except to people familiar with their peculiar conventions; and, apart from their uselessness as interpretations of architecture, they are not even pleasing to look at.

Looking, to begin with, at the paintings with an architectural interest, the most notable are No. 55, "The Forgotten House," a straightforward though rather unpleasingly coloured view of an interesting-looking Carolean mansion (whose locality, rather annoyingly, is not given), by Hesketh Hubbard; No. 117, "Bristol, 1938" (showing the old horse repository), a sound piece of impressionism by Lord Methuen; No. 306, "The Champion," by James W. Tucker, which shows considerable observation of character in suburban architecture despite the embarrassingly facetious subject-matter; No. 407, "Snow on the Square," by Mary Kent-Harrison, which admirably grasps the sensuous character of stucco and paintwork as found in Bayswater or Pimlico; No. 436, "Morning, September, 1940," by William B. Lowe, a bomb-damage scene too slight in content for its size, but well knit together by its subdued tones; No. 456, "The Parish Church, Mortlake," by L. F. Lupton; and No. 564, "London Winter," by Adrian Allinson.

The galleries are dominated by two portraits by Augustus John: one of the Earl of Athlone, and the other—an early one—of W. B. Yeats. The former is given the place of honour in the centre of the end wall of Gallery III.—and well it deserves it: one could ask no more of a portrait. Whenever John cares to exhibit he makes his fellow-academicians look like frustrated spinsters. Inevitably there are a large number of war-like subjects, and it is puzzling to find how poorly these compare with the official war paintings

## THE HYDROSTATIC PARADOX

"... a paradox which comforts while it mocks." Robert Browning.



*The Hydrostatic Bellows*

THE apparatus shown in the sketch consists of two stout boards joined together by flexible waterproof material in the form of bellows. A vertical tube is connected at its foot with the interior of the bellows, and a person standing on the upper board, and pouring water into the tube, will lift himself up. The weight of a column of water 28 inches high exerts, at its lowest level, a pressure in all directions of 1 lb. per square inch, and whether this column of water is itself more or less than one inch square, the pressure will be multiplied by the number of square inches in the enlarged area that the water comes in contact with at that lower level. A few pounds of water can thus be made to balance a ton weight, and this seemingly wonderful multiplication of power has been called the "hydrostatic paradox." It is, however, no more of a paradox than what takes place when a few lbs. pressure, applied to the long arm of a lever, lifts a much greater weight at its short end.

When a basement, or air raid shelter, is sunk in ground that is waterlogged, or in a clay excavation that collects surface water, this water exerts a pressure upon all surfaces in contact with it. The upward pressure upon the area of the floor, tending to float the structure, will be equal to the weight of the whole of the water that it

displaces, no matter how great or small is the total volume of water that surrounds it. For example, presume that a concrete shelter 10 ft.  $\times$  10 ft. overall, on plan, is formed in an impervious clay subsoil with a 3-inch space between the outer surfaces of the walls and the clay excavation faces, and that surface water collects in this outer space to a depth of 5 ft. The weight of the surrounding body of water will be about 28½ cwts., but the total pressure on the bottom of the concrete floor will be approximately 279 cwts.—nearly ten times as great—because a 5 ft. "head" of water exerts a pressure at its base of 2.165 lb. per square inch and this pressure, in an upward direction, is multiplied by the number of square inches contained in the whole area of the floor, which is 100 square feet. The total upward pressure of 279 cwts. is also equal to the weight of the water that is displaced by the submerged portion of the shelter. Such is the "hydrostatic paradox."

The filling in of the 3-inch width of spare excavation with returned earth, thereby reducing the volume of surrounding water, but owing to the looseness of this filling, not entirely excluding it, will not reduce the upwards pressure upon the structure because the lifting power of a given "head" of water will always be the same whether the volume of the surrounding water is more or less; this is obvious when you consider that a ship floats just as high in the smallest dock that will contain it as it does in the ocean.

The principle thus explained makes it clear that when designing any structure which will be partially surrounded by water it is necessary, in addition to making the submerged parts of the structure impervious, that its total dead weight should exceed the weight of the water it displaces; also that the strength of the floor and walls should be adequate to withstand the stresses imposed upon them. If these conditions are satisfied and the work is done in accordance with the ordinary rules of good workmanship, the inclusion of 'PUDLO' Brand waterproofer throughout the thickness of the concrete will ensure a permanently satisfactory result.

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to be seen at the National Gallery. It is partly, of course, that among the official war artists are a number of the best painters in England, to none of whom would it occur to send a picture to the Academy; but the sort of painting that does belong to the Academy school seems to have more point and sincerity outside its walls. Perhaps the explanation is that the official war paintings are conceived first of all as pieces of reporting, whereas in so many of the Academy exhibits the war-like subject is just topical matter for a studio picture, and has nearly always been either sentimentalized or romanticized in the process. Both the observation and the feeling seem to be second-hand. The titles give the clue to the rather cheap topicality exploited: "Thumbs Up, Wavell's Here," "Kitchen Front" (a favourite subject this), "Ploughing for Victory," "The British Railways Carry On," and so on. Compared with these the familiar peace-time Academy subjects ("Polperro Roof-tops," "My Studio Garden," "The River Pool," "My Daughter Stephanie") are welcome because within their own limitations they are at least sincerely felt.

Among a very mediocre collection, the few pictures that stand out as worth serious attention—apart from the two John portraits already referred to—include No. 125, by F. J. L. Stevens, a very painterly piece of still life;

No. 132, a typical landscape, by Charles Ginner; No. 193, by the late James Pryde—a monumental if rather theatrical portrait; No. 403, a charming primitive by L. S. Lowry; No. 526, by Edward le Bas; and No. 249, another of Meredith Frampton's astonishing pieces of verisimilitude. The sculpture is more rubbishy than ever; it is astonishing to what a low level English sculpture has sunk in recent years.

About the Architecture Room there is little one can say: somehow it has contrived to look remarkably like the Architecture Room in peace-time despite the complete stoppage of civil building, though the hanging committee have been driven to eke out the meagre material by giving one wall to water-colour drawings with an olde worlde architectural subject-matter—and a dreary collection they make. The remaining walls contain the usual array of perspective drawings: the Cotswold country-house in its perpetual lowering thunderstorm, the neo-Georgian main-road pub with window-bars as prominent as only Chinese white can make them, the genteel tinted elevation of the arty villa with pantiles on the roof—all as remote from the realities of architecture, in peace or war, as anything could be. This year there are not even any models, the presence of which has been an encouraging sign in recent years.

Exhibits worth noting are Nos. 889-893, some new instalments of Sir Edwin Lutyens's detailed drawings for Liverpool Cathedral, which are at least refreshing for being genuine architectural drawings; No. 902, a conventional and undistinguished perspective of a house at Walton Heath which is interesting because it exactly maintains the well-known Walton Heath or Surrey-common style that was established in 1910 and has already gained the affection of those who collect recondite period flavours; several churches, and (Nos. 945-6) a design for a town hall—location not stated—by W. Curtis Green, which, if one is not mistaken, owes something to Swedish influence. This oddly assorted room is completed, for some unexplained reason, by two large cartoons by the late William Morris—and also by the usual quota of stained glass designs, one of which contributes the only touch of topicality in the whole room by cleverly incorporating a Spitfire in the centre of a circular plaque.

#### Without Comment

"For not more than £2,250 I wish to buy a country house of character, or old style (being an artist, the modern and less picturesque could not be con-

sidered), in good order, to move into now."—From an advertisement in "The Times."

#### Correspondence

The Editor,

THE ARCHITECTURAL REVIEW

SIR,

I venture to think that the writer of the article in your April issue, concerning Eric Gill, got a little confused over the terms "Catholic" and "Roman Catholic," and "The Church" and "The Roman Church." Eric Gill, as the son of a priest of the Church of England, was baptized into the Church at birth, and later was Confirmed in the Church and, therefore, as a member of that part of Christ's Holy Catholic Church established in England, he could never be more a member than he already was—neither could he join that body of which he was already a member. At a certain point in his life he left the Church of England, Holy, Catholic and Apostolic, and joined himself to that part of the Italian Church found in this country, but whose head is an Italian and whose headquarters are in Italy.

Yours, etc.,

(REV.) JAMES O. KNOWLES.

Liverpool.



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## FACTS ABOUT GLASS FOR ARCHITECTURAL STUDENTS

### No. 1—Sheet Glass

★ Sheet Glass is the most commonly used glass for general glazing. It is fire-finished, and in consequence the two surfaces are never perfectly flat or parallel. This accounts for a certain amount of distortion of vision and reflection which is unavoidable with this type of glass.

Sheet glass is made in various thicknesses and is sold by its weight per sq. ft. in ounces.

#### WEIGHTS AND THICKNESSES

18 oz. ... approx. $\frac{1}{16}$ "	26 oz. ... approx. $\frac{1}{8}$ "
24 oz. ... " $\frac{1}{10}$ "	32 oz. ... " $\frac{5}{32}$ "

#### QUALITIES AND CHARACTER

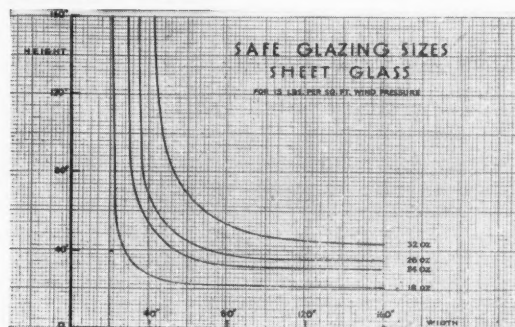
Each of the thicknesses is supplied in three recognised standard qualities, i.e.

ORDINARY GLAZING QUALITY (Referred to as O.Q.)	<i>Suitable for general Glazing purposes.</i>
SELECTED GLAZING QUALITY (Referred to as S.Q.)	<i>For Glazing work requiring a selected glass above the ordinary Glazing quality.</i>
SPECIAL SELECTED QUALITY (Referred to as S.S.Q.)	<i>For high-grade work where a superfine glass is required.</i>

#### LIGHT TRANSMISSION

The absorption of light is so small that, although reflections account for a loss of over 8%, the overall transmission is approximately 90%.

#### GLAZING SIZES



Curves corresponding with each thickness have been prepared to show the maximum safe glazing sizes in

that substance in conditions of exposure not exceeding a wind pressure of 15 LBS. PER SQ. FT. (68.5 m.p.h. wind velocity). Any square, rectangular, or circular size, that can be fitted under the curve corresponding to each substance, fulfills the L.C.C. requirements. For abnormal sites—e.g., when a window forms a wind-pocket or when the building is in an unusually exposed position—requirements should be referred to our Technical Department, St. Helens.

#### EXAMPLES:

- 32 oz.—100" x 47", 80" x 52", 64" square, 41" high x any width, 41" wide x any height, etc.
- 26 oz.—90" x 36", 68" x 40", 51" square, 32" high x any width, 32" wide x any height, etc.
- 24 oz.—80" x 32", 60" x 36", 46" square, 28" high x any width, 28" wide x any height, etc.
- 18 oz.—60" x 22", 48" x 24", 33" square, 20" high x any width, 20" wide x any height, etc.

#### USES

The weight and size of Sheet Glass used in any job should be governed by a consideration of the information given above. For example, for small windows in a double-hung sash used on a housing estate, the safe glazing size suggests 18 oz., but 24 oz. is recommended to provide the additional safety factor. Generally speaking, it is advisable to use a slightly thicker glass than that required to meet the normal safety factor.

In preparing specifications, the following clauses should be included for glazing:

- (1) General Clause: All glass to be of the type, quality and substance specified, and to be of British manufacture. The glazier must be prepared to produce at the completion of the job invoice or voucher from the manufacturer to show that the glass supplied is of the specified standard.
- (2) Glasses should be described by the recognised trade terms, thicknesses and qualities.

#### GENERAL NOTE

Since Sheet Glass is the most economical glass to produce and to buy, it has to be presented here as the accepted standard for all general purposes. This does not, of course, imply that the quality of Sheet Glass is superior or even comparable with that of Polished Plate Glass, which gives an undistorted vision, and which, in the substance normally supplied, has considerably higher factors of strength and of sound and thermal insulation.

This is published by Pilkington Brothers Limited, of St. Helens, Lancs., whose Technical Department is always available for consultation regarding the properties and uses of glass in architecture.



# The Buildings Illustrated

Canteen.

*Architect* : Raglan Squire.

The general contractors were Aircrew Co. Ltd. Among the sub-contractors and suppliers were the following: Square-Grip Reinforcement Co. Ltd. (concrete), Mono Concrete Co. Ltd. (precast floors), Humphries Hollom Ltd. (structural steelwork), Uxbridge Brick and Flint Co. Ltd. (brickwork), Croft Granite Brick and Concrete Co. Ltd. (stone), Wiggins Sankey Ltd. (all sanitary fittings and roofing—"Trafford" asbestos tiles), Comyn Ching and Co. Ltd. (ironmongery), J. T. Meredith and Co. Ltd. (heating and ventilating), C. E. Welstead Ltd. (metal windows), Tentest Fibre Board Co. Ltd. (building and light section ceiling), Cox and Co. (furniture), Hall and Dixon Ltd. (curtains), A. J. Shingleton Ltd. (window blinds), R. and A. Main Ltd. (kitchen equipment), J. W. Gray and Son Ltd. (flagstaffs), Armstrong

Cork Co. Ltd. (cork walls), Buckley and Beach Ltd. (beer pulls in bar), Carter and Co. Ltd. (tiled floors and walls), W. J. Furse and Co. Ltd. (four-colour lighting system), Holophane Ltd. (lighting and fittings), Cellulin Flooring Co. (bar flooring), Strand Electric and Engineering Co. Ltd. (stage lighting).

**Leyton Police Station.**

*Architect* : Julian Leathart.

The general contractors were Pitchers Ltd. Among the sub-contractors and suppliers were the following: Banister Walton and Co. Ltd. (constructional engineers), Broadmead Products Ltd. (reconstructed stonework), J. A. King and Co. Ltd. ("Glaserite" windows), Benham and Sons Ltd. (heating and ventilating engineers), Luxfer Ltd. (metal casements), Ferodo Ltd. (stair nosings), Leeds Fireclay Co. Ltd. (wall tiling to

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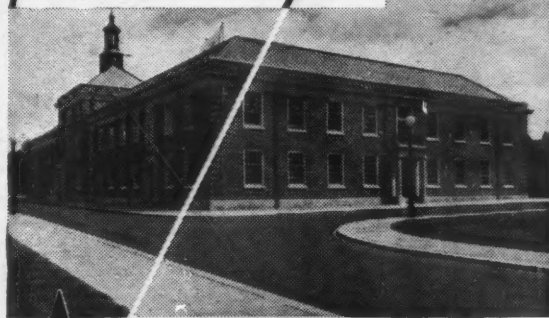
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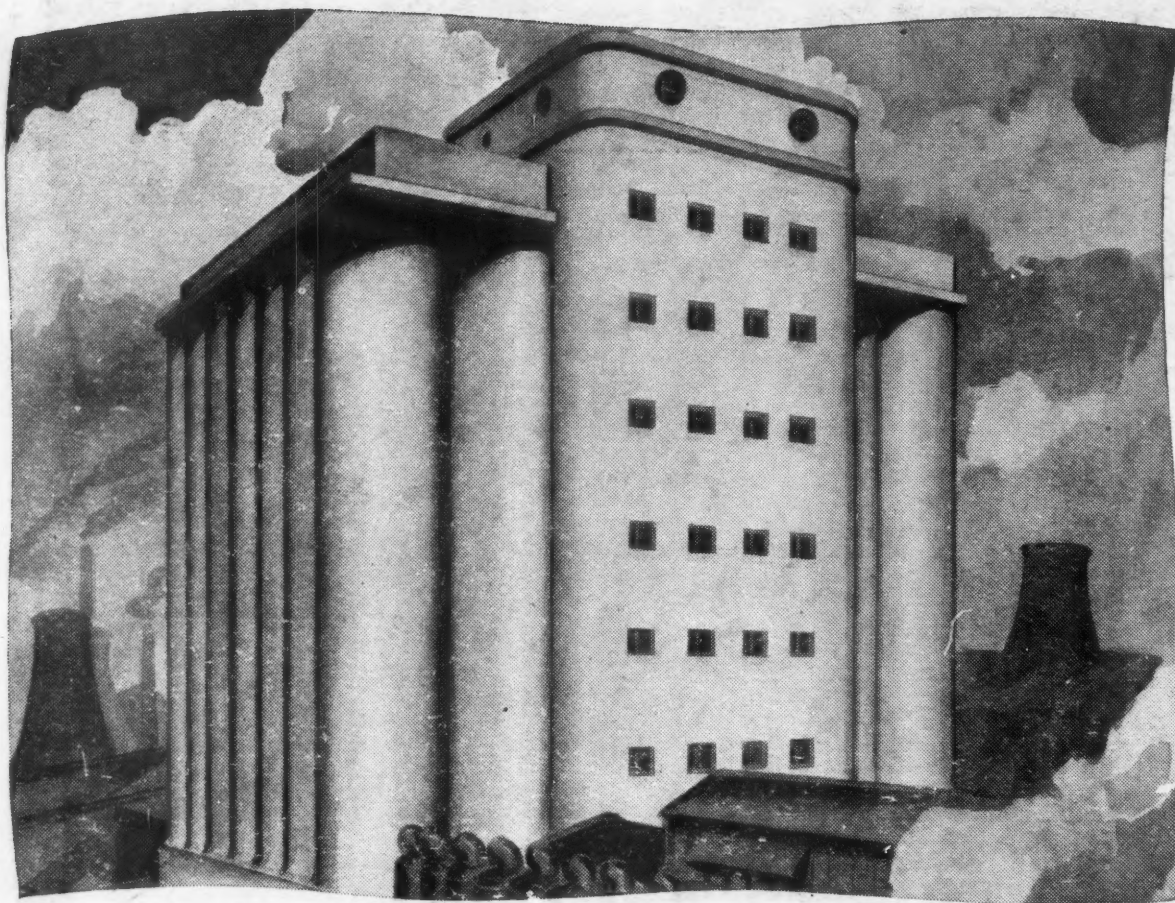
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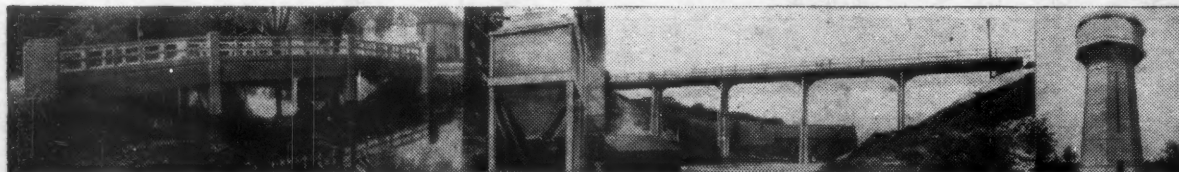
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